

# KV-27TS29 / 27TS32 / 27TS36

RM-Y116 RM-Y117 RM-Y118

# KV-32TS36 / 32TS46

RM-Y118 RM-Y118  
SA-W200

## SERVICE MANUAL

### US Model

KV-27TS29 Chassis No. SCC-F84C-A

KV-27TS32 Chassis No. SCC-F84E-A

KV-27TS36 Chassis No. SCC-F84D-A

KV-32TS36 Chassis No. SCC-F84A-A

KV-32TS46 Chassis No. SCC-F84B-A

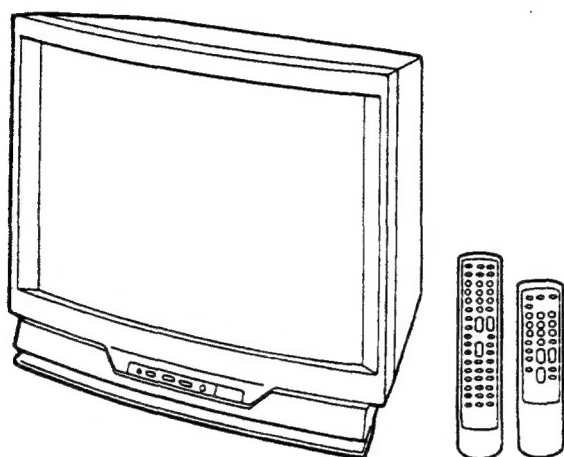
### Canadian Model

KV-27TS29 Chassis No. SCC-F85C-A

KV-27TS36 Chassis No. SCC-F85D-A

KV-32TS36 Chassis No. SCC-F85A-A

KV-32TS46 Chassis No. SCC-F85B-A



## AA-1 CHASSIS

### MODELS OF THE SAME SERIES

KV-27TS29/27TS32/27TS36

KV-32TS36 KV-29V15TR

KV-2970RS/2970M/2975M

### SPECIFICATIONS

**Television system** American TV standards

**Channel coverage** VHF: 2-13  
UHF: 14-69  
Cable TV: 1-125

**Picture tube** Hi-Black™ Trinitron® tube  
27-inch picture measured diagonally  
29-inch picture tube measured diagonally (KV-27TS29/27TS32/27TS36)  
32-inch picture measured diagonally  
34-inch picture tube measured diagonally (KV-32TS36/32TS46)

**Antenna** 75-ohm external antenna terminal for VHF/UHF

#### Input

#### VIDEO and S VIDEO

S VIDEO IN (S terminal)

Y: 1 Vp-p, 75-ohms unbalanced, sync negative

C: 0.286 Vp-p (Burst signal), 75-ohms

Video (phono jacks): 1 Vp-p, 75-ohms unbalanced, sync negative

Audio (phono jacks): 500 mVrms (100% modulation)  
Impedance: 47 kilohms

— Continued on next page —



TRINITRON® COLOR TV  
**SONY®**

**KV-27TS29/27TS32/27TS36**  
RM-Y116 RM-Y117 RM-Y118  
**KV-32TS36/32TS46**  
RM-Y118 RM-Y118  
SA-W200

**Output** AUDIO OUT (phono jacks)  
More than 408 mVrms at the  
maximum volume setting (variable)  
More than 408 mVrms (fix)  
Impedances: 5 kilohms

**Speaker output** 5 W x 2

**Audio frequency response** : FRONT 80Hz - 20kHz

**Power requirements** 120 V AC, 60 Hz

**Power consumption**

|           |       |
|-----------|-------|
| KV-27TS29 | 165 W |
| KV-27TS32 | 165 W |
| KV-27TS36 | 170 W |
| KV-32TS36 | 195 W |
| KV-32TS46 | 205 W |

standby mode 5 W

**Dimensions/Weight**

|           | Dimensions (w/h/d)   | Weight                  |
|-----------|--|-------------------------|
| KV-27TS29 | 661 x 603 x 522 mm<br>(26 <sup>1</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>4</sub> x 20 <sup>5</sup> / <sub>8</sub> in.) | 45 kg<br>(99 lbs 4 oz)  |
| KV-27TS32 | 661 x 603 x 522 mm<br>(26 <sup>1</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>4</sub> x 20 <sup>5</sup> / <sub>8</sub> in.) | 45 kg<br>(99 lbs 4 oz)  |
| KV-27TS36 | 661 x 603 x 522 mm<br>(26 <sup>1</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>4</sub> x 20 <sup>5</sup> / <sub>8</sub> in.) | 45 kg<br>(99 lbs 4 oz)  |
| KV-32TS36 | 781 x 712 x 612 mm<br>(30 <sup>3</sup> / <sub>4</sub> x 28 <sup>1</sup> / <sub>8</sub> x 24 <sup>1</sup> / <sub>8</sub> in.) | 71 kg<br>(156 lbs 9 oz) |
| KV-32TS46 | 781 x 712 x 612 mm<br>(30 <sup>3</sup> / <sub>4</sub> x 28 <sup>1</sup> / <sub>8</sub> x 24 <sup>1</sup> / <sub>8</sub> in.) | 71 kg<br>(156 lbs 9 oz) |

**Supplied accessories**

(KV-27TS29)  
Remote Commander RM-Y116(1) with 2  
size AA (R6) EVEREADY batteries  
(KV-27TS32)  
Remote Commander RM-Y117(1) with 1  
size AA (R6) EVEREADY battery  
(KV-27TS36/32TS36/32TS46)  
Remote Commander RM-Y118(1) with 1  
size AA (R6) EVEREADY battery  
(KV-32TS46)  
Active Super Woofer

**Recommended accessories**

U/V mixer EAC-66  
Connecting cable  
VMC-810S/820S, VMC-720M,  
YC-15V/30V, RK-74A

Design and specifications are subject to change without  
notice.

**WARNING!!**

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY  
SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF  
LIVE CHASSIS.  
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO  
THE AC POWER LINE.

**SAFETY-RELATED COMPONENT WARNING !!**

COMPONENTS IDENTIFIED BY SHADING AND MARK  $\Delta$  ON THE  
SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS  
LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE  
COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS  
APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS  
PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE  
CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS  
MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRIT-  
ICAL COMPONENTS ARE REPLACED OR IMPROPER OPERA-  
TION IS SUSPECTED.

**ATTENTION!!**

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT  
D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR  
D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.  
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ  
À L'ALIMENTATION SECTEUR.

**ATTENTION AUX COMPOSANTS RELATIFS À LA  
SÉCURITÉ!!**

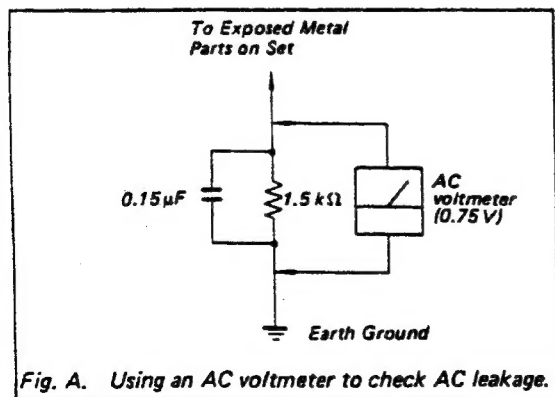
LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE  
MAPQUE  $\Delta$  SUR LES SCHÉMAS DE PRINCIPE, LES VUES  
EXPLOSÉES ET LES LISTES DE PIÈCES CONT D'UNE  
IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU  
FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES  
COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ  
DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS  
PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT  
L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU  
FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT  
MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE  
REMPLACEMENT DE COMPOSANTS CRITIQUES, OU  
LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

**SAFETY CHECK-OUT**

(US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).  
Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

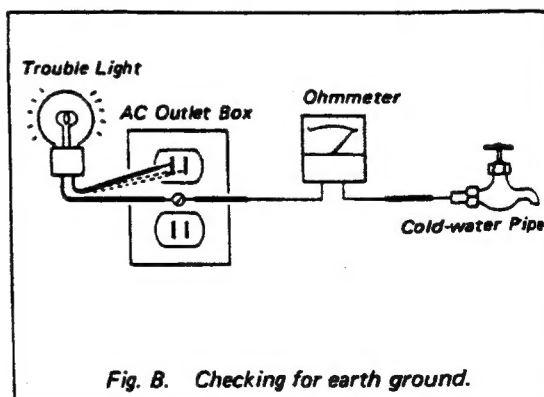
**LEAKAGE TEST**

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

**HOW TO FIND A GOOD EARTH GROUND**

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)



**V-27TS29/27TS32/27TS36**

RM-Y116 RM-Y117 RM-Y118

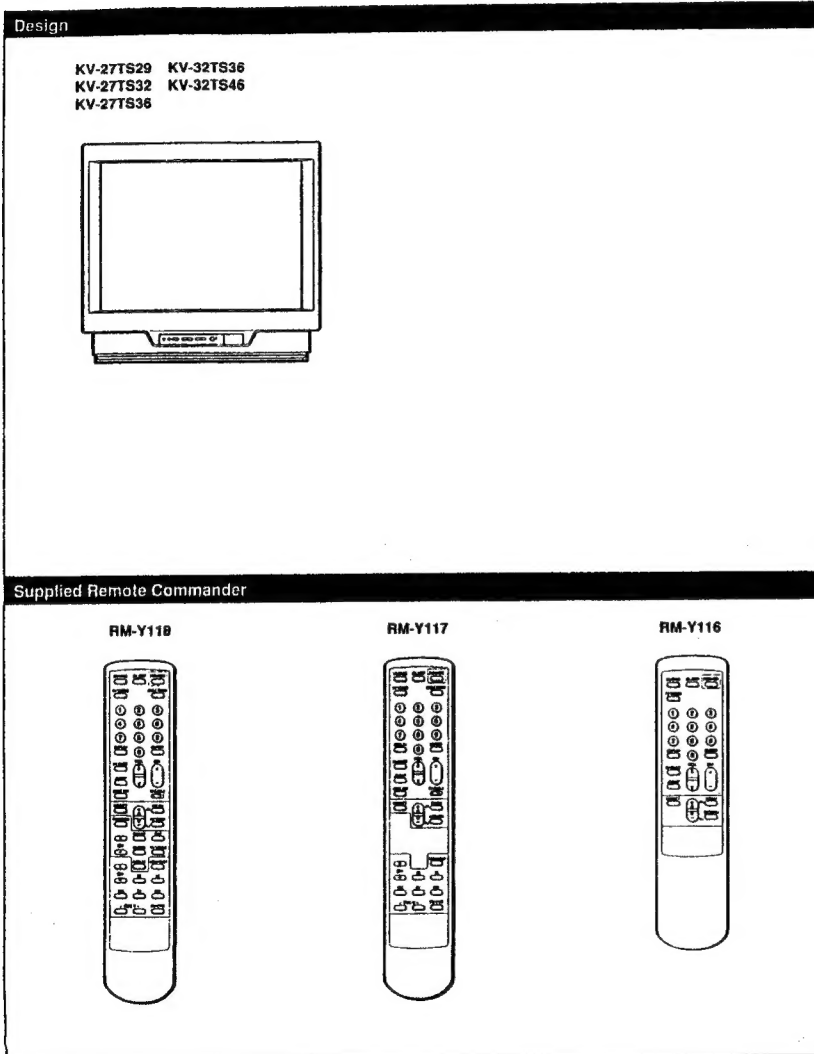
**V-32TS36/32TS46**RM-Y118 RM-Y118  
SA-W200**TABLE OF CONTENTS**

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## SECTION 1 GENERAL

This section is extracted from  
instruction manual.

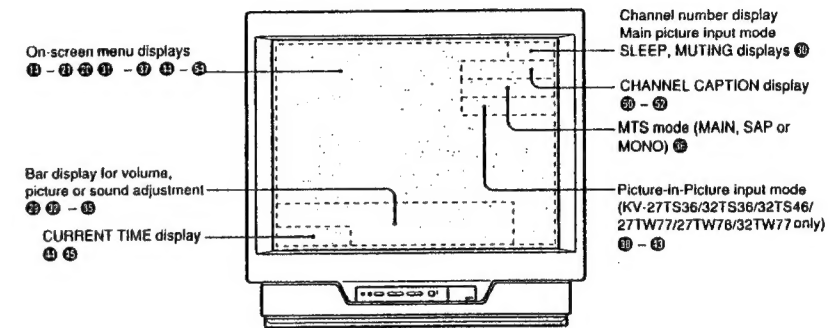
### 1-1. INTRODUCING THE SONY TRINITRON® COLOR TV



### 1-2. LOCATING THE CONTROLS

#### Screen Displays

For details, see the pages indicated by the numbered black circles ●.

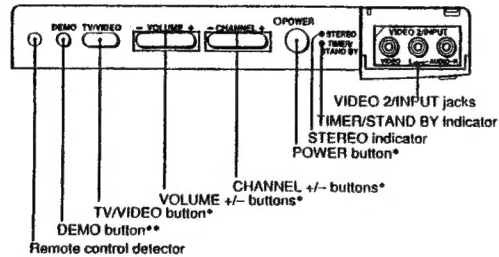
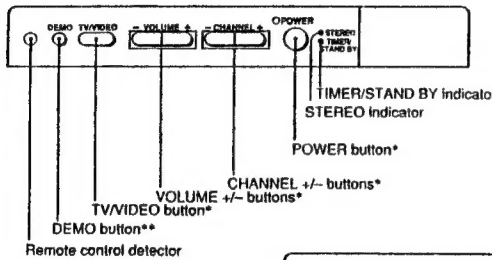
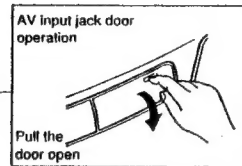
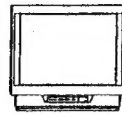
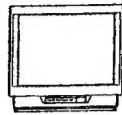


**KV-32TS36**  
(The screen displays, except for certain features  
as noted above, are the same for all models.)

## Front Panel

KV-27TS29

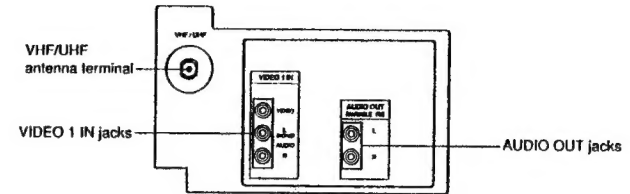
KV-27TS32 KV-27TS36  
KV-32TS36 KV-32TS46



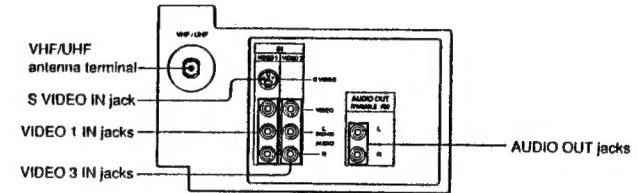
- \* Buttons with the same function are also located on the Remote Commander (pp. 10 - 11).
- \*\* If you press this button, functions and menus are displayed one by one. Press any button to stop DEMO.

## Rear Panel

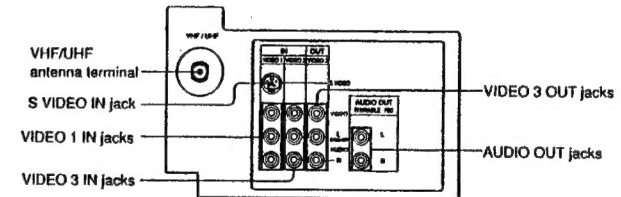
KV-27TS29



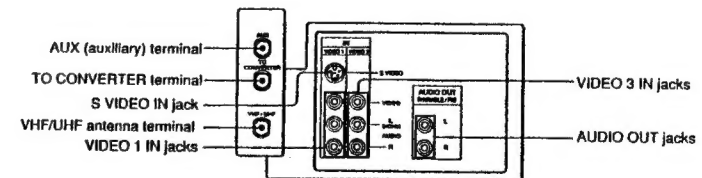
KV-27TS36 KV-32TS36



KV-27TS32

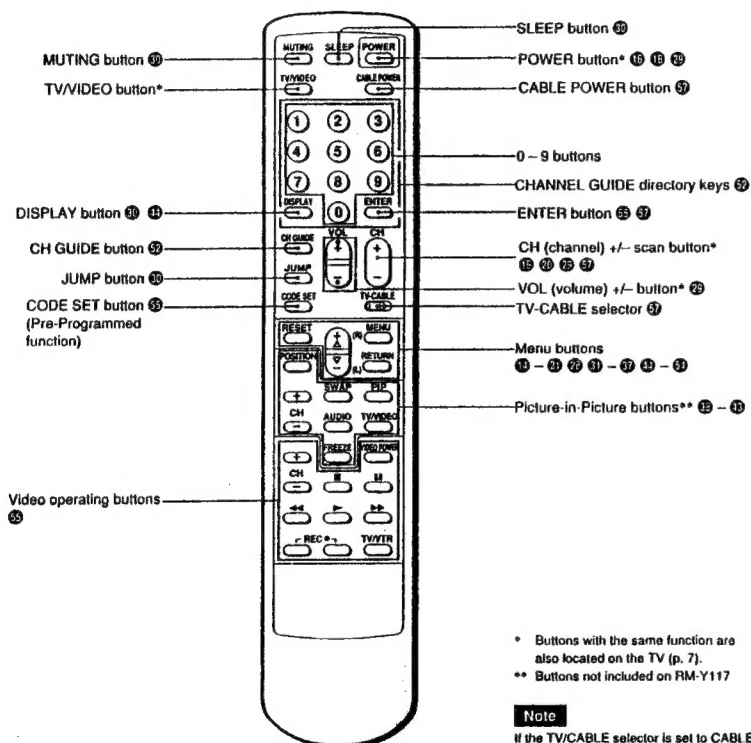


KV-32TS46



## Remote Commander

For details, see the pages indicated by the numbered black circles ●.

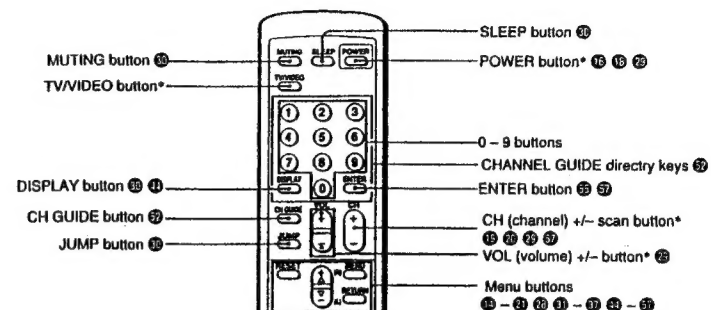


RM-Y118: KV-27TS36 KV-32TS36  
KV-32TS46  
(RM-Y117: KV-27TS32)

- \* Buttons with the same function are also located on the TV (p. 7).
- \*\* Buttons not included on RM-Y117

### Note

If the TV/CABLE selector is set to CABLE, the Remote Commander is able to control a connected cable box, not the TV. Set the selector to TV to control the TV set with the Remote Commander (You can use POWER button at any case).



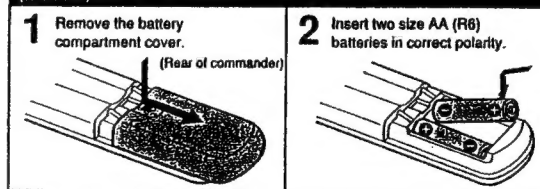
RM-Y116: KV-27TS29

\* Buttons with the same function are also located on the TV (p. 7).

**WARNING**  
Batteries may explode if mistreated. Do not recharge, disassemble, or dispose of in fire.

## Installing Batteries

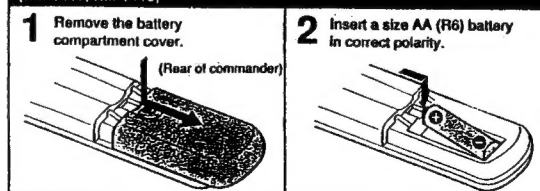
(RM-Y116)



**Battery life**  
With normal operation, batteries will last up to half a year. If the Remote Commander does not operate properly, the batteries might be exhausted. Replace both of them with new ones.

**To avoid damage from possible battery leakage**  
Remove the batteries if you do not plan to use the Remote Commander for a fairly long time.

(RM-Y117, RM-Y118)



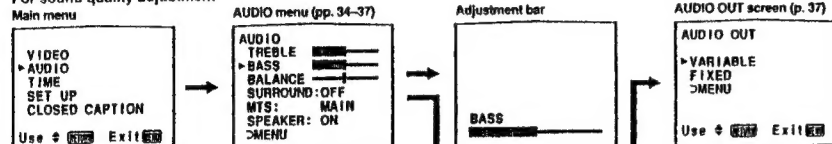
## 1-3. USING THE ON-SCREEN MENUS

The following flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. See the indicated pages for instructions on using each feature.

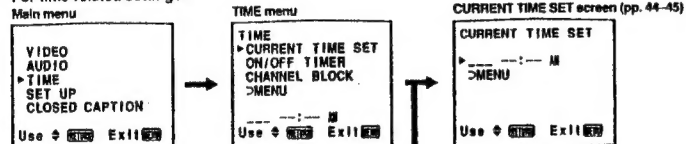
### For picture quality adjustment



### For sound quality adjustment



### For time-related settings



### For language setting (p. 18)



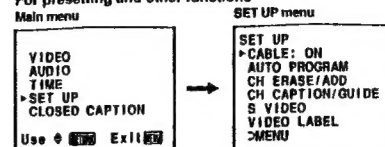
### ON/OFF TIMER screen (pp. 46-47)



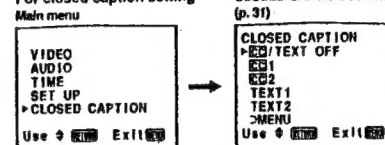
### CHANNEL BLOCK screen (pp. 48-49)



### For presetting and other functions

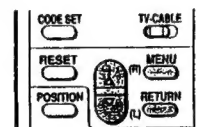


### For closed caption setting



### Navigating through the Menus

Remote Commander



To display the main menu  
Press MENU.

To return to the previous menu  
Press Δ+ or ∇- to select "MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU on the Remote Commander.

### Note

The menus disappear automatically if you do not press a button within 90 seconds.  
The menu you cannot select appears in black.

### CABLE ON/OFF screen (p. 17)



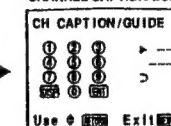
### AUTO PROGRAM screen (p. 18)



### CHANNEL ERASE/ADD screen (pp. 19-21)



### CHANNEL CAPTION/GUIDE screen (pp. 50-51)

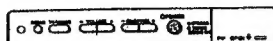


### S VIDEO ON/OFF screen (p. 28)



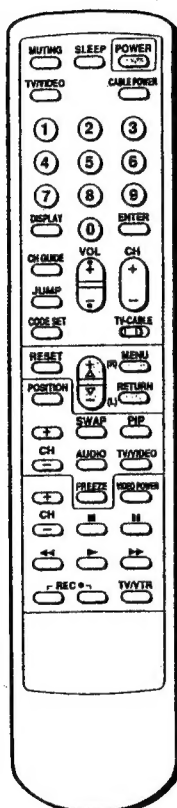
### VIDEO LABEL screen (pp. 53-54)





### Changing the Menu Language (KV-27TS32:2970RS only)

The menu language is factory-set to ENGLISH. Follow these instructions to change the menu language to Spanish or back to English.



RM-Y118

To return to the normal screen  
Press MENU.

**1** Press POWER on the TV or the Remote Commander to turn the TV on.

POWER

**2** Press MENU.  
The main menu appears.

MENU

VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
ENGLISH  
Use  $\Delta$   $\nabla$  Exit

**3** Press  $\Delta$  or  $\nabla$  to select ENGLISH.  
Then press RETURN.

RETURN

VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
ENGLISH  
Use  $\Delta$   $\nabla$  Exit

**4** Press  $\Delta$  or  $\nabla$  to select language.  
Each time you press  $\Delta$  or  $\nabla$ ,  
ESPAÑOL and ENGLISH menus appear.

ESPAÑOL

VIDEO  
AUDIO  
HORA  
AJUSTES  
CLOSED CAPTION  
ESPAÑOL  
Use  $\Delta$   $\nabla$  Salir

#### Note

Certain parts of the ESPAÑOL menus remain in English.

**5** Press RETURN.  
The language is selected.

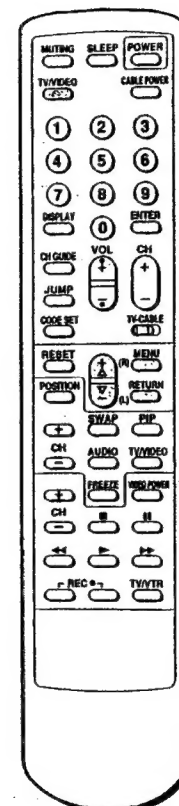
RETURN

VIDEO  
AUDIO  
HORA  
AJUSTES  
CLOSED CAPTION  
ESPAÑOL  
Use  $\Delta$   $\nabla$  Salir

Spanish menu

## 1-4. TURNING THE CABLE MODE ON OR OFF

All of the controls are on the Remote Commander.



RM-Y118

To return to the normal screen  
Press MENU.

If you have cable connected to your TV (pp.12-13), follow the steps below to turn the cable connection on or off. CABLE is preset to ON when you use your TV for the first time. Then turn CABLE to OFF to preset or watch VHF or UHF channels (pp.18-21 and 29).

**1** Press MENU.  
The main menu appears.

MENU

VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
Use  $\Delta$   $\nabla$  Exit

**2** Press  $\Delta$  or  $\nabla$  to select SET UP.

SET UP

VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
Use  $\Delta$   $\nabla$  Exit

Press RETURN.  
The SET UP menu appears, and the cursor points to "CABLE".

RETURN

#### Note

If the CABLE display appears in black, the TV is in VIDEO mode and you cannot select CABLE. Press TV/VIDEO to change to TV mode.

**3** Press RETURN again.

RETURN

SET UP  
CABLE: ON  
AUTO PROGRAM  
CH ERASE/ADD  
CH CAPTION/GUIDE  
S VIDEO  
VIDEO LABEL  
>MENU

Press  $\Delta$  or  $\nabla$  to select ON or OFF alternately.

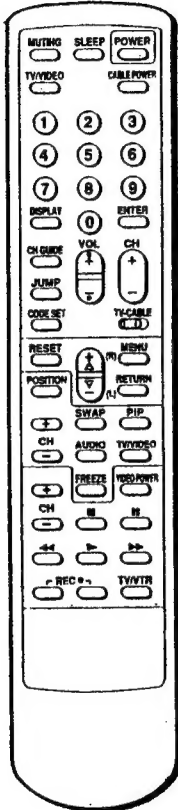
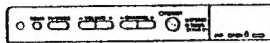
SET UP  
CABLE: ON  
AUTO PROGRAM  
CH ERASE/ADD  
CH CAPTION/GUIDE  
S VIDEO  
VIDEO LABEL  
>MENU



SET UP  
CABLE: OFF  
AUTO PROGRAM  
CH ERASE/ADD  
CH CAPTION/GUIDE  
S VIDEO  
VIDEO LABEL  
>MENU

Press RETURN.  
The setting is completed.

## 1-5. PRESETTING TV CHANNELS



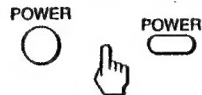
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Channels that can be received on this TV:

| VHF  | UHF   | Cable |
|------|-------|-------|
| 2-13 | 14-69 | 1-125 |

### Presetting TV Channels Automatically

1 Press POWER on the TV or the Remote Commander to turn the TV on.



2 Set the cable connection on or off, depending on if you want to preset cable or VHF/UHF channels.  
(Follow the steps in "Turning the Cable Mode On or Off", p.17)

If "VIDEO" is displayed on the screen, press the TV/VIDEO button on the TV or the Remote Commander so that a channel number appears.

3 Press MENU.



VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
Use  $\Delta$  RETURN Exit

4 Press  $\Delta$  or  $\nabla$  to select SET UP.  
Then press RETURN.



SET UP  
CABLE: ON  
AUTO PROGRAM  
CH ERASE/ADD  
CH CAPTION/GUIDE  
S VIDEO  
VIDEO LABEL  
>MENU

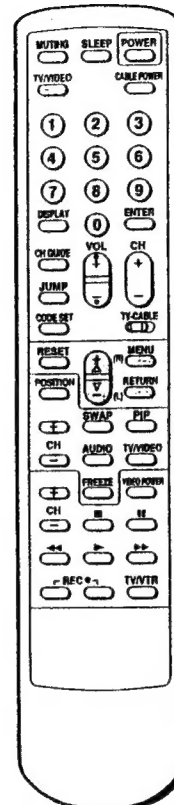
5 Press  $\Delta$  or  $\nabla$  to select AUTO PROGRAM.  
Then press RETURN.



SET UP  
CABLE: ON  
AUTO PROGRAM  
CH ERASE/ADD  
CH CAPTION/GUIDE  
S VIDEO  
VIDEO LABEL  
>MENU

"AUTO PROGRAM" appears on the screen and receivable channels (other than the channels already preset) are preset in numerical sequence. The channels previously preset will not remain in the TV's memory.  
When no more channels can be found, the programming stops and the lowest numbered channel is displayed.

To erase unnecessary channels, or to add channels that could not be preset automatically because their signal was too weak, follow the steps in "Erasing Unnecessary Channels — CHANNEL ERASE" (pp.19-20) and "Presetting Only Desired Channels — CHANNEL ADD" (p. 21).



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### Erasing Unnecessary Channels—CHANNEL ERASE

Use this feature to erase unnecessary TV channels, so that when you press CH  $\Delta/\nabla$ , the channel(s) are skipped.

1 Press MENU.



VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
Use  $\Delta$  RETURN Exit

2 Press  $\Delta$  or  $\nabla$  to select SET UP.



VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
Use  $\Delta$  RETURN Exit

Press RETURN.



SET UP  
CABLE: ON  
AUTO PROGRAM  
CH ERASE/ADD  
CH CAPTION/GUIDE  
S VIDEO  
VIDEO LABEL  
>MENU

3 Press  $\Delta$  or  $\nabla$  to select CH ERASE/ADD.



SET UP  
CABLE: ON  
AUTO PROGRAM  
CH ERASE/ADD  
CH CAPTION/GUIDE  
S VIDEO  
VIDEO LABEL  
>MENU

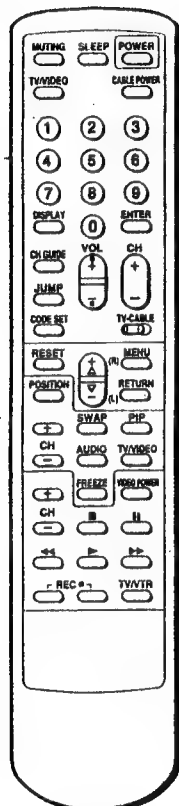
Press RETURN.  
The CH ERASE/ADD screen appears, and the cursor points to "ERASE".



CH ERASE/ADD  
ERASE  
ADD  
>MENU  
Select the channel  
Use  $\Delta$  RETURN Exit

#### Note

If CH ERASE/ADD display appears in black, the TV is in video mode and you cannot select CH ERASE/ADD.  
Press TV/VIDEO to change to TV mode.



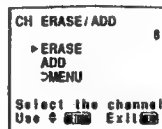
RM-Y118

To return to the normal screen  
Press MENU.

#### Note

When you erase a VHF or UHF channel, the cable TV channel with the same number is also erased, and vice versa.

- 4** Press the CH +/- button to select the channel you want to erase.  
For example, to erase channel 8, press CH +/- until 8 appears.



Press RETURN.

A "-" sign appears in front of the channel number display, indicating that the channel is erased from the channel scan memory.



The next time you press the CH +/- buttons, channel 8 will be skipped.

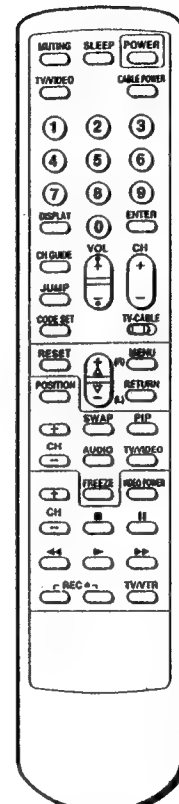
To erase other channels  
Repeat step 4.

#### Cable TV channel chart\*

Cable TV systems use letters or numbers to designate channels. To tune to a channel, refer to the chart below.

| Number on the TV | Corresponding cable TV channel | Number on the TV | Corresponding cable TV channel |
|------------------|--------------------------------|------------------|--------------------------------|
| 1                | A-8                            | 33               | T                              |
| 5                | A-7                            | 34               | U                              |
| 6                | A-6                            | 35               | V                              |
| 14               | A                              | 36               | W                              |
| 15               | B                              | 37               | W+1                            |
| 16               | C                              | 38               | W+2                            |
| 17               | D                              | 39               | W+3                            |
| 18               | E                              | 40               | W+4                            |
| 19               | F                              | 93               | W+57                           |
| 20               | G                              | 94               | W+58                           |
| 21               | H                              | 95               | A-5                            |
| 22               | I                              | 96               | A-4                            |
| 23               | J                              | 97               | A-3                            |
| 24               | K                              | 98               | A-2                            |
| 25               | L                              | 99               | A-1                            |
| 26               | M                              | 100              | W+59                           |
| 27               | N                              | 101              | W+60                           |
| 28               | O                              | 102              | W+61                           |
| 29               | P                              | 103              | W+62                           |
| 30               | Q                              | 123              | W+82                           |
| 31               | R                              | 124              | W+83                           |
| 32               | S                              | 125              | W+84                           |

\* This designation of cable TV channels conforms to the EIA/NCTA recommendation. Check with your local cable TV company for more complete information on the available channels.



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To return to the normal screen  
Press MENU.

#### Note

If you add a VHF or UHF channel, the cable TV channel with the same number is also added, and vice versa.

### Presetting Only Desired Channels—CHANNEL ADD

Use this feature to add channels one by one to the channel scan memory.

## 1-3

(Follow steps 1-3 in "Erasing Unnecessary Channels—CHANNEL ERASE," p.19.)

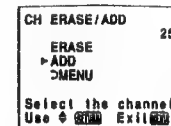
#### Note

If the CH ERASE/ADD display appears in black, the TV is in video mode and you cannot select CHANNEL ERASE/ADD. Press TV/VIDEO to change to TV mode.

- 4** Press + or - to select ADD.



- 5** Press 0-9 and ENTER to select the channel you want to add.  
For example, to add channel 25, press 2, 5 and ENTER.



Press RETURN.

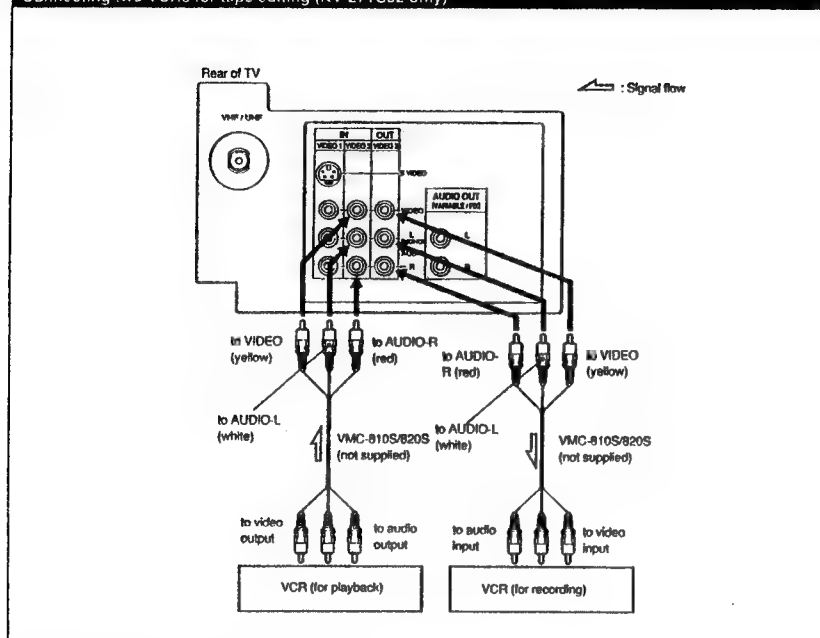
A "+" sign appears in front of the channel number display, indicating that the channel is added to the channel scan memory.



To add other channels  
Repeat step 5.

## 1-6. CONNECTING OTHER EQUIPMENT

Connecting two VCRs for tape editing (KV-27TS32 only)



### Watching a different image while duplicating

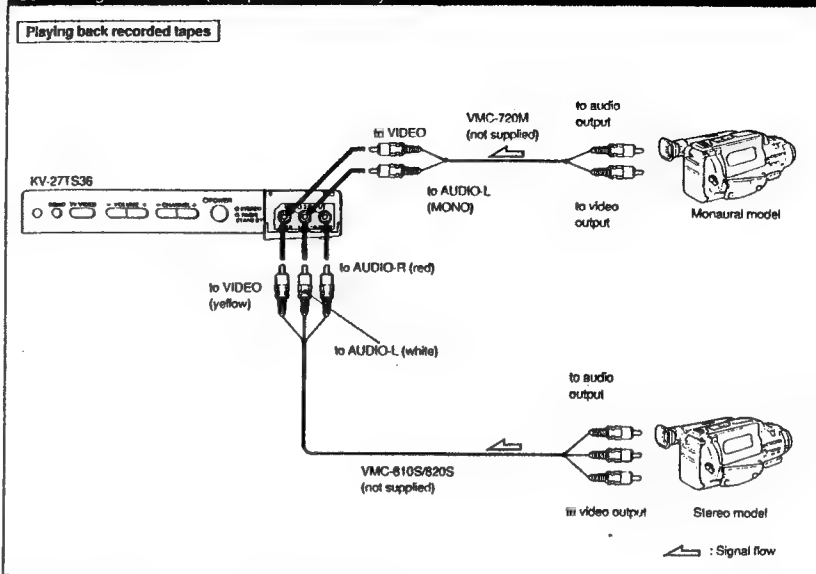
You can duplicate your recorded tapes by connecting two VCRs.

The VIDEO 3 OUT jacks only output the signal from the VIDEO 3 IN jacks. Connect a VCR for playback to VIDEO 3 IN jacks, and a VCR for recording to the VIDEO 3 OUT jacks. You can watch a TV program or images from VIDEO 1 IN or VIDEO 2 IN during duplicating.

### To watch a different input image

Press TV/VIDEO on the TV or on the Remote Commander to select the input image you want to watch.

Connecting camcorders (except for KV-27TS29)

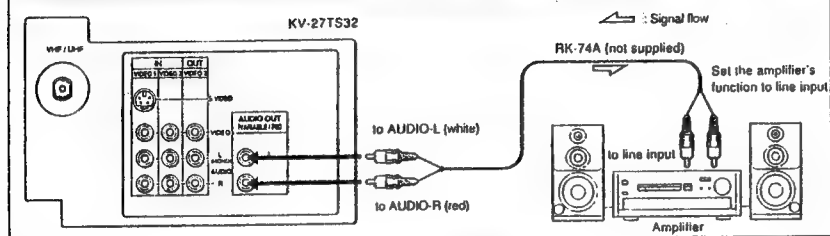


### Preparing for use

Same as p. 23.

## Audio System

### Listening to TV or connected VCR sound through an audio system



#### Preparing for use

Display the mode set menu and set **SPEAKER** to OFF to cut off the TV speaker sound (p. 37), and listen to the TV's sound solely through the audio system speakers.

#### Note

By setting **AUDIO OUT** variable, you can adjust the bass, treble and balance, or select surround or an MTS (Multichannel TV Sound) mode, using the on-screen menus (pp. 34-36).

### Connecting active super woofer (supplied with KV-32TS46 only)

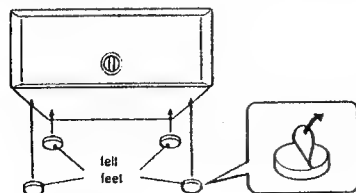
#### Preparing for use

To enjoy the active super woofer sound, make sure the connections are made as illustrated on the next page.

The woofer volume varies according to the TV volume. Adjust the woofer level control properly.

The active super woofer outputs the signal input to its **AUDIO IN** jacks. If you connect an audio system to the active super woofer's **AUDIO OUT** jacks, you can enjoy the sound from the audio system and the active super woofer simultaneously.

To make the active super woofer stable, attach the felt feet (supplied) to the bottom.

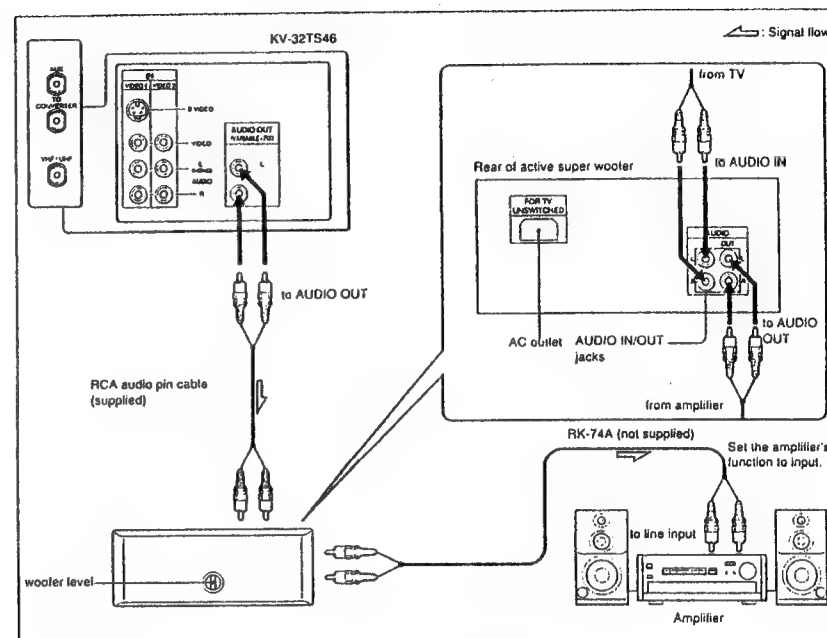


#### Notes

- Do not place the woofer on the TV set. To enjoy good sound, place the woofer on a hard object near the TV avoiding soft objects like carpets, sofas, etc.
- If you do not use the TV for more than 20 seconds, the active super woofer is turned off automatically to save on power consumption.
- When you release **MUTING**, the sound of the woofer is heard before that of the TV. This is normal.
- If you set **SPEAKER** to OFF in the **AUDIO** menu and select **Fix** in the **AUDIO OUT** menu (p.37), the volume of the woofer may be excessive. We recommend that you set **SPEAKER** to ON when you use the active super woofer.
- You should only connect the KV-32TS46 to the AC outlet on the active super woofer.

#### Active Super Woofer Specification

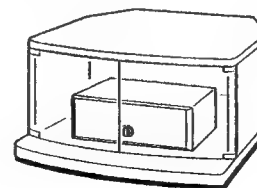
Input: 500 mVrms (100% modulation)  
 Output: 500 mVrms (100% modulation)  
 Impedance: 20 kilohms  
 Speaker output: 9 W (100 Hz)  
 Dimensions: 435 x 165 x 164 mm (W x H x D)  
 (17 1/4 x 6 1/2 x 6 1/2 in.)  
 Mass: 3.9 kg  
 (8 lbs 10 oz)



#### Using TV stand

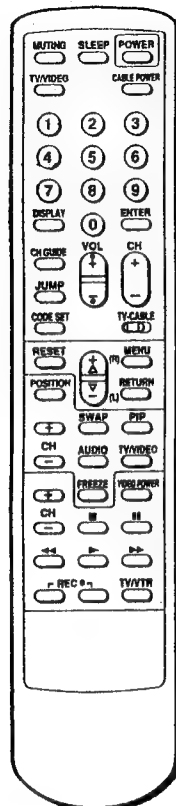
When you place the active super woofer on a TV stand (not supplied), remove the rear panel of the stand.

Sony or other manufacture's stand



#### Note

For good sound quality, avoid placing the stand in front of a curtain or close to a wall.



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To return to the normal screen  
Press MENU.

**NOTE**  
If you set S VIDEO to ON, the TV automatically receives S video signals whenever a VCR with S video is connected.

### Watching a Video with Your S Video-Equipped VCR (except for KV-27TS29/2970HS)

Use this feature to set S VIDEO to ON or OFF depending on the kind of video equipment you have connected to the TV. For instructions on connecting video equipment, see pp.22-25.

#### Note

If the TV is in TV, VIDEO 2 or VIDEO 3 mode, the S VIDEO display appears in black and cannot be selected.

Press TV/VIDEO to change to VIDEO 1 mode.

- 1 Press MENU.  
The main menu appears.



>VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
Use Exit

- 2 Press  $\Delta$  or  $\nabla$  to select SET UP.



VIDEO  
AUDIO  
TIME  
>SET UP  
CLOSED CAPTION  
Use Exit

Press RETURN.  
The SET UP menu appears.



SET UP  
>CABLE: ON  
AUTO PROGRAM  
CH ERASE/ADD  
CH CAPTION/GUIDE  
S VIDEO: ON  
VIDEO LABEL  
>MENU

- 3 Press  $\Delta$  or  $\nabla$  to select S VIDEO.  
Then press RETURN.



SET UP  
CABLE: ON  
AUTO PROGRAM  
CH ERASE/ADD  
CH CAPTION/GUIDE  
>S VIDEO: ON  
VIDEO LABEL  
>MENU

Press  $\Delta$  or  $\nabla$  to select ON or OFF alternately.

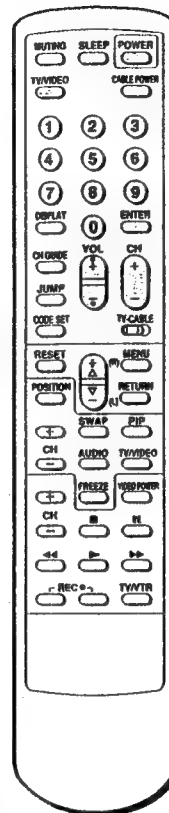
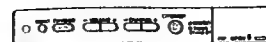
SET UP  
CABLE: ON  
AUTO PROGRAM  
CH ERASE/ADD  
CH CAPTION/GUIDE  
S VIDEO: ON  
VIDEO LABEL  
>MENU



SET UP  
CABLE: ON  
AUTO PROGRAM  
CH ERASE/ADD  
CH CAPTION/GUIDE  
S VIDEO: OFF  
VIDEO LABEL  
>MENU

Press RETURN.  
The setting is completed.

## 1-7. WATCHING TV PROGRAMS



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- 1 Press POWER on the TV or the Remote Commander to turn the TV on.  
The TIMER/STAND BY indicator blinks until the picture appears.

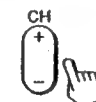


- 2 Turn the cable mode on or off to select the type of channel you want to watch, VHF/UHF or cable TV.  
(Follow the steps in "Turning the Cable Mode On or Off," p. 17.)

If "VIDEO" or "S VIDEO" is displayed on the screen, press the TV/VIDEO button on the TV or on the Remote Commander so that the channel number appears.

- 3 Select a channel in one of the following two ways:

To scan the preset channels\* in numerical sequence  
Press CH +/-.

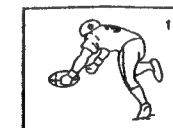


\* For more information on presetting channels, see pp. 18 - 21.

To select a channel directly

Press 0 - 9 and ENTER.

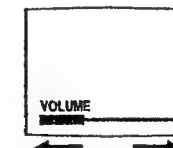
For example, to select channel 14, press 1, 4 and ENTER.



- 4 Press VOL +/- to adjust the volume.



The display will disappear automatically after 3 seconds.

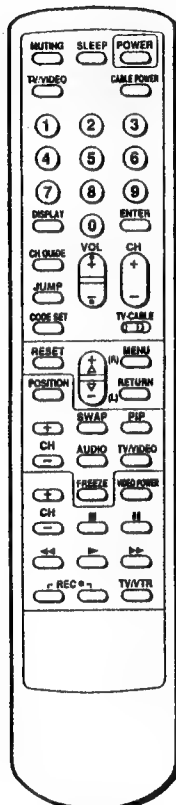


Press + to increase the volume.  
Press - to decrease the volume.

To turn off the TV

Press POWER on the TV or the Remote Commander again.

## 1-8. USING CONVENIENT FEATURES



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### Muting the Sound — MUTING

Press **MUTING**.  
The display "MUTING" will appear on the screen.

To restore the sound  
Press **MUTING** again, or press **VOL +**.



### Keeping the Displays On-Screen — DISPLAY

To display the channel  
Press **DISPLAY**.  
All the existing displays appear: channel number, channel caption (if set), MTS mode ("SAP" only), window picture input mode and the current time ("AM" or "PM" disappears after about three seconds).

To cancel the display  
Press **DISPLAY** again.  
The channel display will disappear.



### Using the Sleep Timer — SLEEP

The sleep timer turns off the TV automatically after the amount of time you select.

Press **SLEEP**.  
Each time you press **SLEEP**, the time increments "30", "60", "90" and "OFF" mode appear in sequence.



|           |
|-----------|
| SLEEP 30  |
| SLEEP 60  |
| SLEEP 90  |
| SLEEP OFF |

The **SLEEP** display appears about one minute before the TV turns off.

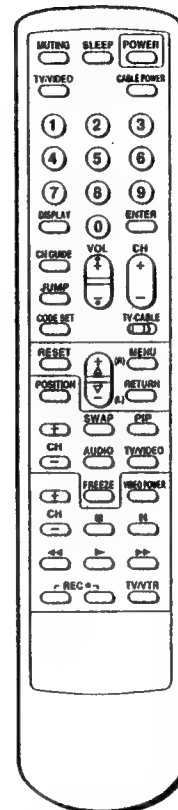
To cancel the setting  
Press **SLEEP** until "OFF" mode appears.  
The "SLEEP OFF" display appears for about three seconds.  
OR  
Turn the TV off.  
The sleep timer setting is cancelled.

### Switching Quickly Between Two Channels—JUMP

Press **JUMP** once to recall the channel you were watching previously. Press **JUMP** again to switch back. Use this feature to keep track of two programs alternately.



## 1-9. USING CLOSED CAPTION (U.S.A. models only)



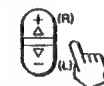
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1 Press **MENU**.  
The main menu appears.



VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
Use  $\Delta$   $\nabla$  Exit

2 Press  $\Delta$  or  $\nabla$  to select **CLOSED CAPTION**.  
Then press **RETURN**.  
The **CLOSED CAPTION** screen appears.



CLOSED CAPTION  
CC/TEXT OFF  
CC1  
CC2  
TEXT1  
TEXT2  
MENU  
Use  $\Delta$   $\nabla$  Exit

3 Press  $\Delta$  or  $\nabla$  to select closed caption mode.



Select **CC1** or **CC2** to view Captions.  
A Caption is a printed version of the dialogue or sound effects of a program. (The mode should be set to **CC1** for most programs.)

CLOSED CAPTION  
CC/TEXT OFF  
CC1  
CC2  
TEXT1  
TEXT2  
MENU  
Use  $\Delta$   $\nabla$  Exit

Select **TEXT1** or **TEXT2** to view Text.  
Text is information that is presented using the half to full television screen. It is usually not related to the program.

CLOSED CAPTION  
CC/TEXT OFF  
CC1  
CC2  
TEXT1  
TEXT2  
MENU  
Use  $\Delta$   $\nabla$  Exit

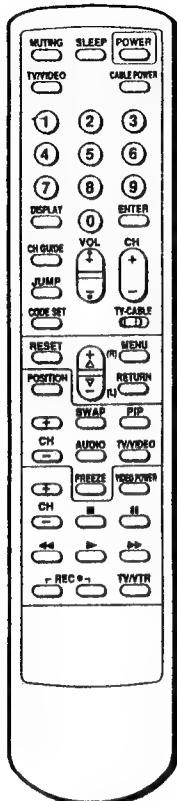
Select **CC/TEXT OFF** if you do not want to use the **CLOSED CAPTION** mode.

CLOSED CAPTION  
CC/TEXT OFF  
CC1  
CC2  
TEXT1  
TEXT2  
MENU  
Use  $\Delta$   $\nabla$  Exit

Press **RETURN**.  
The setting is completed.



## 1-10. WATCHING TWO PICTURES AT ONCE (Picture-in-Picture)

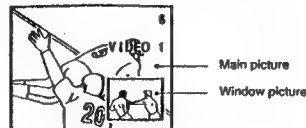


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### Note

To operate your VCR with the supplied Remote Commander, See "Using the Pre-Programmed Remote Commander", pp. 55-57.

You can watch both the main picture and a window picture simultaneously by using the Picture-in-Picture (PIP) function. Model KV-32TS46 is equipped with two-tuner PIP, allowing you to watch two TV channels at once. Other models are equipped with one-tuner PIP. To watch two different TV channels, you must first connect a VCR to the TV, to watch a second TV channel through the VCR tuner. (See "Connecting Other Equipment", pp. 22-27.)



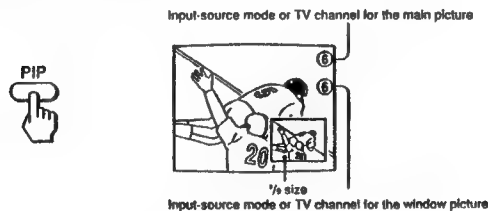
### Picture-in-Picture special features

When watching the main picture and a window picture, you can:

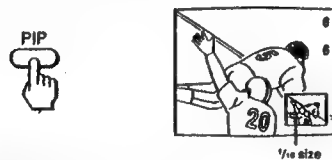
- Swap the main and window pictures (SWAP).
- Change the position of the window picture (POSITION).
- Display a still picture as a window (FREEZE).
- Choose the sound from the main or window picture (AUDIO).

### Displaying a window picture—PIP

Press PIP to display a window picture



Press PIP again to display a smaller window picture



To disappear the window picture  
Press PIP once more.

### Changing the window picture input mode

1 Press PIP to display a window picture.




2 Press TV/VIDEO in the Picture-in-Picture control area to select the input mode. Each time you press TV/VIDEO, "TV", "VIDEO 1", "VIDEO 2" and "VIDEO 3" appear in sequence.



A window picture will appear in the same input mode as the last time you used PIP.

### To receive the window picture sound

Press AUDIO.

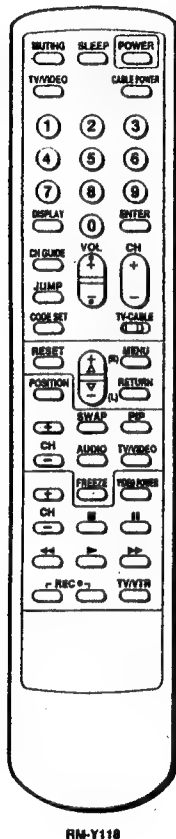
The  display appears for a few seconds, indicating that the window picture sound is being received.



To restore the main picture sound  
Press AUDIO again.

### Notes

- If the main picture is not receiving an image, the window picture may be in black and white.
- When you turn PIP on or when you turn the TV on with PIP mode on the window picture will appear at the bottom right of the screen.
- The window picture may be affected by the condition of the main picture.
- The window picture sound is also output from the VARIABLE/FIX AUDIO OUT jacks.



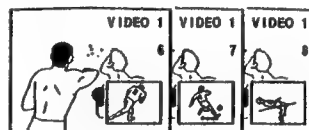
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### Changing TV channels in the window picture

- 1 Press PIP to display a window picture.



- 2 Press CH +/- in the PIP control area.

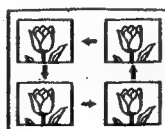


### Changing the position of the window picture—POSITION

- 1 Press PIP to display a window picture.



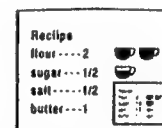
- 2 Press POSITION.  
Each time you press POSITION, the window picture will move counterclockwise on the screen, as illustrated below.



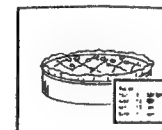
### Displaying a still picture — FREEZE

Use the FREEZE function to display a still picture as a window. This function is useful when you want to write down a recipe from a cooking program, a displayed address or a phone number and so on.

- 1 Press PIP to display a window picture.



- 2 Press FREEZE.  
The window picture image remains still on the screen.



To restore the normal picture  
Press FREEZE again.

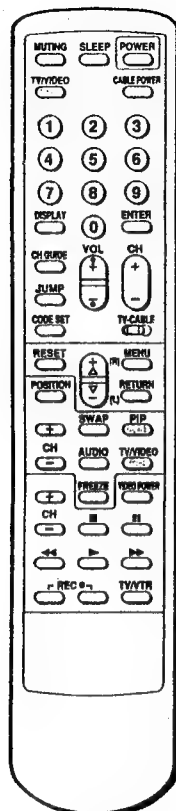
### Swapping the main and window pictures — SWAP

- 1 Press PIP to display a window picture.



- 2 Press SWAP.  
Each time you press SWAP, the images from the main and window pictures switch places.

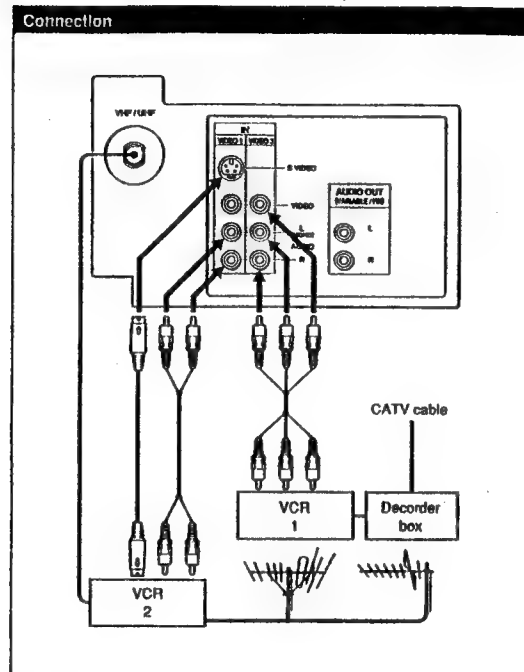




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### Displaying a pay cable TV channel as a window picture

To display a pay cable TV channel as a window picture, connect your decoder box as illustrated below.



#### Note

The channels being received through the AUX terminal cannot be displayed as a window picture. (KV-32TS46 only)

After making the connections, turn the cable mode on by following the steps "Turning the Cable Mode On or Off", p. 17. Then continue with steps below.

- 1 Press PIP to display a window picture.



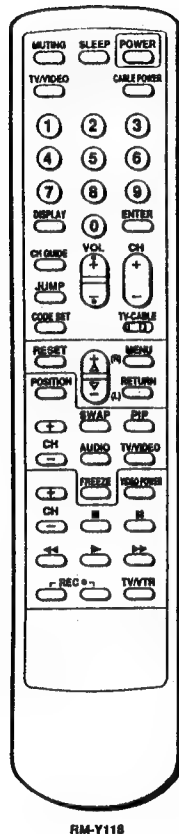
- 2 Press TV/VIDEO in the Picture-in-Picture control area to select the input mode. Each time you press TV/VIDEO, "TV", "VIDEO 1", "VIDEO 2" and "VIDEO 3" appear in sequence.



- 3 Put your VCR on an inactive channel (CH 3 or 4).

- 4 Change pay cable TV channels with the decoder box.

## 1-11. USING THE TIMER-ACTIVATED FUNCTIONS



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### Setting the Clock—CURRENT TIME SET

Follow these instructions to set the current time. The correct time must be set in order to use the timer-activated functions (ON/OFF TIMER, CHANNEL BLOCK).

EXAMPLE: Set the time to 3:15 PM, Monday.

- 1 Press MENU.  
The main menu appears.



VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
Use Exit

- 2 Press  $\Delta$  or  $\nabla$  to select TIME.



VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
Use Exit

Press RETURN.  
The TIME menu appears, and the cursor points to "CURRENT TIME SET".



TIME  
CURRENT TIME SET  
ON/OFF TIMER  
CHANNEL BLOCK  
MENU  
Use Exit

- 3 Press RETURN.  
The CURRENT TIME SET screen appears.



CURRENT TIME SET  
MON 12:00 M  
MENU  
Use Exit

- 4 Press RETURN again.  
"Set the day:" appears on the screen.



CURRENT TIME SET  
SUN 12:00 M  
MENU  
Set the day.  
Use Exit

- 5 Press  $\Delta$  or  $\nabla$  to set the day.  
Each time you press  $\Delta$  or  $\nabla$ , the day changes consecutively.



Press RETURN.  
"Set the time:" appears on the screen.



CURRENT TIME SET  
MON 12:00 M  
MENU  
Set the time.  
Use Exit

- 6 Press  $\Delta$  or  $\nabla$  to set the hour.  
Each time you press  $\Delta$  or  $\nabla$ , the hour changes starting with "12:00 AM."



Press RETURN.



CURRENT TIME SET  
MON 3:00 M  
MENU  
Set the time.  
Use Exit

- 7 Press  $\Delta$  or  $\nabla$  to set the minutes.  
Each time you press  $\Delta$  or  $\nabla$ , the minutes change in sequence.



Press RETURN.  
The setting is completed, and the clock starts.



CURRENT TIME SET  
MON 3:15 M  
MENU  
Set the time.  
Use Exit

CURRENT TIME SET  
MON 3:15 M  
MENU  
Use Exit

To reset the time  
Press RESET while in the CURRENT TIME screen, and repeat steps 4-7.

To display the time  
Press DISPLAY.

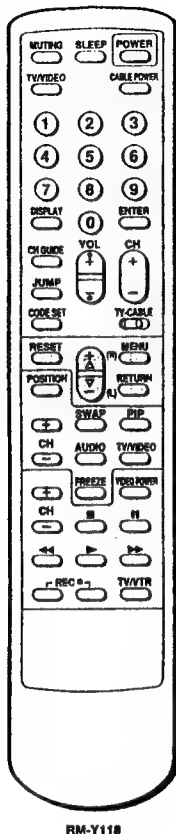
To return to the normal screen  
Press MENU.

#### Notes

- The internal clock of this TV operates on a 12-hour cycle. If a 24-hour cycle number (for instance, 13:00) is entered, it will be cleared when you press RETURN.

12:00 AM stands for midnight.  
12:00 PM stands for noon.

- All the settings including CURRENT TIME SET will be erased if you unplug the TV or a power failure occurs. Reset the current time by following steps 1-7.



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## Setting the ON/OFF TIMER

With this function you can set your favorite program to appear on the screen at the time that you set.

EXAMPLE: Set the timer to turn on the TV every Monday through Friday at 3:15 PM for 2 hours, on channel 21.

- 1 Press MENU.  
The main menu appears.



VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
Use  $\Delta$   $\nabla$  Exit

- 2 Press  $\Delta$  or  $\nabla$  to select TIME.  
Then press RETURN.  
The TIME menu appears.



TIME  
CURRENT TIME SET  
ON/OFF TIMER  
CHANNEL BLOCK  
MENU  
MON 3:15 PM  
Use  $\Delta$   $\nabla$  Exit

- 3 Press  $\Delta$  or  $\nabla$  to select ON/OFF TIMER.  
Then press RETURN.  
The ON/OFF TIMER screen appears.



ON/OFF TIMER  
EVERY SUN-SAT  
12:00M\_h CH\_\_\_\_  
MENU  
Use  $\Delta$   $\nabla$  Exit

### Note

If the ON/OFF TIMER display appears in black, the current time has not been set and you cannot select ON/OFF TIMER. To set the clock, see "Setting the Clock—CURRENT TIME SET", pp. 44–45.

- 4 Press RETURN again.  
"Set the day." appears on the screen.



ON/OFF TIMER  
EVERY SUN-SAT  
12:00M\_h CH\_\_\_\_  
MENU  
Set the day.  
Use  $\Delta$   $\nabla$  Exit

- 5 Press  $\Delta$  or  $\nabla$  to set the day.  
Each time you press  $\Delta$  or  $\nabla$ , the days of the week change as shown in Fig. 1.  
Then press RETURN.  
"Set the time." appears on the screen.



ON/OFF TIMER  
EVERY MON-FRI  
12:00M\_h CH\_\_\_\_  
MENU  
Set the time.  
Use  $\Delta$   $\nabla$  Exit

- 6 Press  $\Delta$  or  $\nabla$  to set the hour that you want the TIMER to start.  
Each time you press  $\Delta$  or  $\nabla$ , the hour changes in sequence.  
Then press RETURN.



ON/OFF TIMER  
EVERY MON-FRI  
3:00M\_h CH\_\_\_\_  
MENU  
Set the time.  
Use  $\Delta$   $\nabla$  Exit

- 7 Press  $\Delta$  or  $\nabla$  to set the minutes.  
Each time you press  $\Delta$  or  $\nabla$ , the minutes change in sequence.  
Then press RETURN.  
"Set the duration." appears on the screen.



ON/OFF TIMER  
EVERY MON-FRI  
3:15M\_h CH\_\_\_\_  
MENU  
Set the duration.  
Use  $\Delta$   $\nabla$  Exit

- 8 Press  $\Delta$  or  $\nabla$  to set the duration of time.  
Each time you press  $\Delta$  or  $\nabla$ , the duration changes from "1" to "6" in sequence.  
Then press RETURN.  
"Select the channel" appears on the screen.



ON/OFF TIMER  
EVERY MON-FRI  
3:15M 2h CH\_\_\_\_  
MENU  
Select the channel  
Use  $\Delta$   $\nabla$  Exit

- 9 Press  $\Delta$  or  $\nabla$  to set the channel that you want the TV to tune in.  
Each time you press  $\Delta$  or  $\nabla$ , the channel number changes from 1 to 125 in sequence.



ON/OFF TIMER  
EVERY MON-FRI  
3:15M 2h CH 21  
MENU  
Select the channel!  
Use  $\Delta$   $\nabla$  Exit

Press RETURN.  
The setting is completed, and the TIMER indicator on the front of the TV lights up.



ON/OFF TIMER  
EVERY MON-FRI  
3:15M 2h CH 21  
MENU  
Use  $\Delta$   $\nabla$  Exit

To clear the ON/OFF TIMER setting  
Press RESET while in the ON/OFF TIMER screen.

To return to the normal screen  
Press MENU.

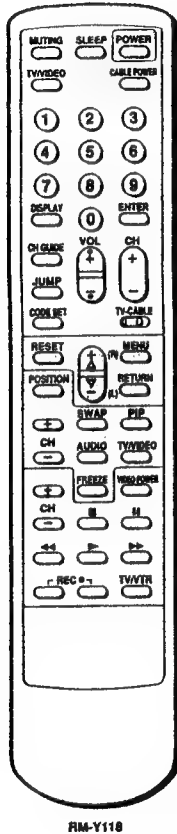
### Notes

- While the TIMER is set, the TIMER indicator on the TV is on.
- One minute before the timer goes off, the "TV will turn off" display will appear on the screen.
- All the settings including ON/OFF TIMER will be erased if you unplug the TV or a power failure occurs. Reset the ON/OFF TIMER by following steps 1-9.
- If you have not set the clock correctly, the ON/OFF TIMER will not operate at the proper time. To set the clock, see "Setting the Clock—CURRENT TIME SET", pp. 44–45.

Fig. 1  
Selecting the day(s) of the week  
When you press  $\Delta$ , the days of the week appear in the following order.



( $\nabla$ —reverse order)



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## Setting CHANNEL BLOCK

Use this function to block a channel from appearing on the screen during the time you specify. You can use this function to prevent children from watching undesirable programs.

EXAMPLE: Set CHANNEL BLOCK every Sunday at 8:45 PM for one hour, on channel 38.

- 1** Press MENU.  
The main menu appears.



VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
Use Exit

- 2** Press  $\Delta$  or  $\nabla$  to select TIME.  
Then press RETURN.  
The TIME menu appears.



TIME  
CURRENT TIME SET  
ON/OFF TIMER  
CHANNEL BLOCK  
MENU  
MON 3:15 PM  
Use Exit

- 3** Press  $\Delta$  or  $\nabla$  to select CHANNEL BLOCK.  
Then press RETURN.  
The CHANNEL BLOCK screen appears.



CHANNEL BLOCK  
EVERY SUN-SAT  
12:00AM \_h CH\_\_\_\_  
MENU  
Use Exit

### Note

If the CHANNEL BLOCK display appears in black, the current time has not been set and you cannot select CHANNEL BLOCK. To set the clock, see "Setting the Clock—CURRENT TIME SET", pp. 44–45.

- 4** Press RETURN again.  
"Set the day," appears on the screen.



CHANNEL BLOCK  
EVERY SUN-SAT  
12:00AM \_h CH\_\_\_\_  
MENU  
Set the day.  
Use Exit

- 5** Press  $\Delta$  or  $\nabla$  to set the day.  
Each time you press  $\Delta$  or  $\nabla$ , the days of the week change as shown in Fig. 1. (See p. 47).  
Then press RETURN.  
"Set the time," appears on the screen.



CHANNEL BLOCK  
SUNDAY  
12:00AM \_h CH\_\_\_\_  
MENU  
Set the time.  
Use Exit

- 6** Press  $\Delta$  or  $\nabla$  to set the hour.  
Each time you press  $\Delta$  or  $\nabla$ , the hour changes in sequence.  
Then press RETURN.



CHANNEL BLOCK  
SUNDAY  
8:00PM \_h CH\_\_\_\_  
MENU  
Set the time.  
Use Exit

- 7** Press  $\Delta$  or  $\nabla$  to set the minutes.  
Each time you press  $\Delta$  or  $\nabla$ , the minutes change in sequence.  
Then press RETURN.  
"Set the duration," appears on the screen.



CHANNEL BLOCK  
SUNDAY  
8:45PM \_h CH\_\_\_\_  
MENU  
Set the duration.  
Use Exit

- 8** Press  $\Delta$  or  $\nabla$  to set the duration of time that you want the TV remain blocked.  
Each time you press  $\Delta$  or  $\nabla$ , the duration changes from 1 to 8 in sequence.  
Then press RETURN.  
"Select the channel," appears on the screen.



CHANNEL BLOCK  
SUNDAY  
8:45PM 1h CH\_\_\_\_  
MENU  
Select the channel  
Use Exit

- 9** Press  $\Delta$  or  $\nabla$  to set the channel that you want to block.  
Each time you press  $\Delta$  or  $\nabla$ , the channel number changes from 1 to 125 in sequence.



Press RETURN.  
The setting is completed.



CHANNEL BLOCK  
SUNDAY  
8:45PM 1h CH 38  
MENU  
Select the channel  
Use Exit

CHANNEL BLOCK  
SUNDAY  
8:45PM 1h CH 38  
MENU  
Use Exit

If you select a channel which has been blocked, the message of "BLOCKED" appears.



To clear the BLOCK setting  
Press RESET while in the CHANNEL BLOCK screen.

To return to the normal screen  
Press MENU.

### Notes

- If you set a new CHANNEL BLOCK by following steps 1-9, the original setting will be erased.
- If you have not set the clock correctly, CHANNEL BLOCK will not operate at the proper time. To set the clock, see "Setting the Clock—CURRENT TIME SET", pp. 44–45.

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Use this feature to caption up to 12 channel number displays with the matching channel call letters.

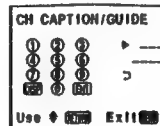
**1** Press **MENU**.  
The main menu appears.



**2** Press  $\Delta$ + or  $\nabla$ - to select SET UP. Then press RETURN.  
The SET UP menu appears.

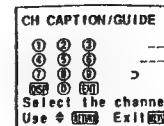
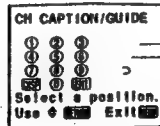


**3** Press  $\Delta +$  or  $\nabla -$  to select CH CAPTION/GUIDE. Then press RETURN.  
The CH CAPTION/GUIDE screen appears.

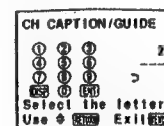


If the CH CAPTION display appears in black, the TV is in video mode and you cannot select CH CAPTION/GUIDE. Press TV/VIDEO to change to TV mode.

**4** Press RETURN again.  
"Select a position," appears on the screen.

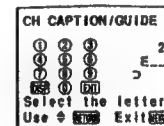


**6** Press  $\Delta$  + or  $\nabla$  - to select the channel you want to caption. Each time you press  $\Delta$  + or  $\nabla$  -, the channel number changes from 1 to 125. Then press RETURN.

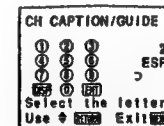


**7** Press  $\Delta$  or  $\nabla$  - to select the first letter.  
Each time you press  $\Delta$  or  $\nabla$  -, "0-9", "A-Z", "&", "?", "-", and "\_(blank space)" appear in sequence.

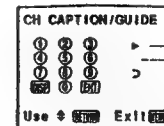
Then press RETURN.



**8** Repeat step 7 to select each remaining letter.  
(For a 3-letter caption, leave a space by pressing RETURN only.)

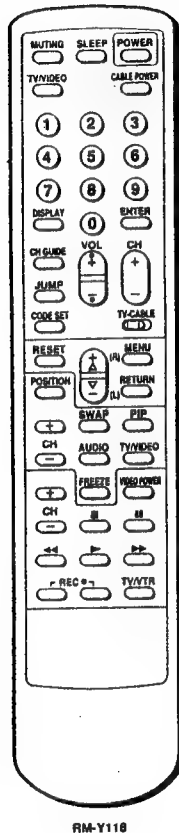


**9** Press RETURN.  
The setting is completed.



**To erase unneeded captions**  
Call the caption setting screen by following steps 1-5, and press **RESET**.

To return to the normal screen  
Press MENU.



## Viewing the Captioned Channels --- CH GUIDE

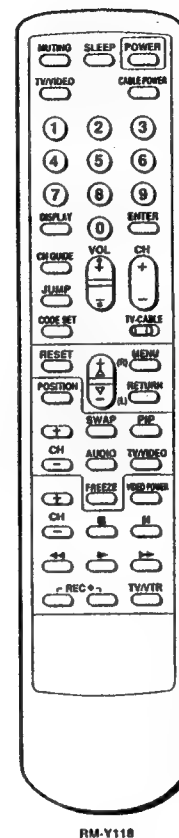
Use this feature to display the captions you set, and to select a channel directory for viewing.

- 1 Press CH GUIDE.  
A directory appears, corresponding to the directory keys on the Remote Commander.



To cancel the CHANNEL GUIDE screen  
Press CH GUIDE again.

- 2** Press the directory key of the channel you want to watch.



### Setting VIDEO LABEL (except for KV-27TS29/2970RS)

Use this feature to label each input mode in order to identify the equipment connected to each input terminal.

**EXAMPLE: Label VIDEO 1 IN as VHS.**

- 1 Press **MENU**.  
*The main menu appears.*



►VIDEO  
AUDIO  
TIME  
SET UP  
CLOSED CAPTION  
Use   Exit 

- 2 Press  $\Delta+$  or  $\nabla-$  to select SET UP.



Press RETURN.  
The SET UP menu appears.

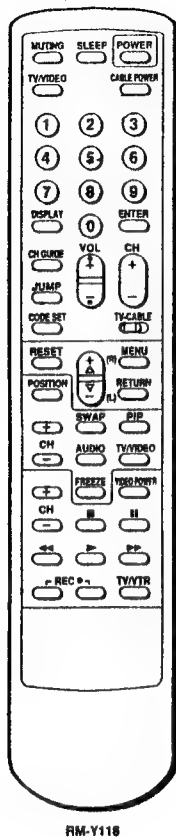


- 3** Press  $\Delta +$  or  $\nabla -$  to select VIDEO LABEL.



Press RETURN.  
The VIDEO LABEL screen appears.





To return to the normal screen  
Press MENU.

**4** Press  $\Delta$  or  $\nabla$  to select the input mode you want to label.

Press RETURN.

**5** Press  $\Delta$  or  $\nabla$  to select VHS.

Each time you press  $\Delta$ , the label changes:

VIDEO 1  
VIDEO 1  $\rightarrow$  S VIDEO  $\rightarrow$  BETA  $\rightarrow$  8 mm  $\rightarrow$  VHS  $\rightarrow$  LD

VIDEO 2  
VIDEO 2  $\rightarrow$  BETA  $\rightarrow$  8 mm  $\rightarrow$  VHS  $\rightarrow$  LD

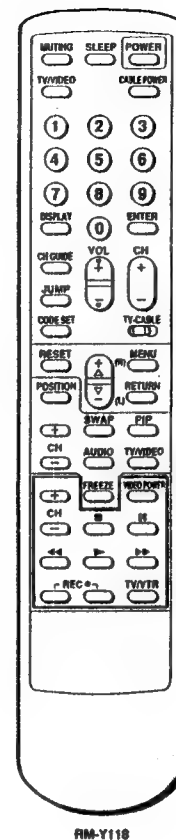
VIDEO 3  
VIDEO 3  $\rightarrow$  BETA  $\rightarrow$  8 mm  $\rightarrow$  VHS  $\rightarrow$  LD

( $\nabla$ —reverse order)

Press RETURN.

To label other input modes  
Repeat steps 4–5.

## 1-13. USING THE PRE-PROGRAMMED REMOTE COMMANDER



You can operate your video equipment and cable converter box that has an infrared remote detector with this supplied pre-programmed Remote Commander.

### Operating Sony or non-Sony Video Equipment—Pre-Programmed Function

With the supplied Remote Commander, you can operate a Sony video cassette recorder (Beta, 8 mm, VHS) or a multi disc player as well as most non-Sony video equipment connected to your TV by following the steps below.

- 1 While pressing CODE SET, press 0 - 9 to enter the manufacturer's code number (see chart on p. 56). For example, to operate a Sony 8 mm VCR, press 0, 2 and ENTER.



- 2 Use the video operating buttons on the Remote Commander to operate the video equipment.

#### Operating a VCR

To turn on or off  
To change channels (when watching TV programs through the VCR's tuner)  
To record  
To play  
To stop  
To fast forward  
To rewind the tape  
To pause  
To search the picture forward and backward

Press VIDEO POWER.  
Press CH  $\pm$ .  
  
Press  $\bullet$  (2 buttons simultaneously).  
Press  $\triangleright$ .  
Press  $\blacksquare$ .  
Press  $\triangleright\triangleright$ .  
Press  $\triangleleft\triangleleft$ .  
Press  $\text{II}$ .  
Press  $\triangleright\triangleright$  or  $\triangleleft\triangleleft$  during playback.

#### Operating a Video Disc Player

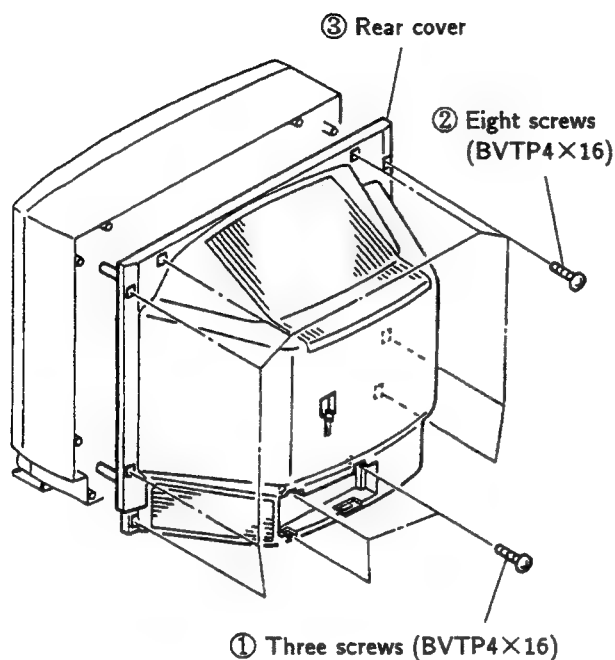
To play  
To stop  
To pause  
  
To search the picture forward and backward

Press  $\triangleright$ .  
Press  $\blacksquare$ .  
Press  $\text{II}$ .  
To resume normal playback, press again.  
\*This function is effective only for CAV (standard-play disc). With CLV (extended-play disc), the TV will go into the standby mode if  $\text{II}$  is pressed.  
Keep pressing  $\triangleright\triangleright$  or  $\triangleleft\triangleleft$  during playback.  
To resume normal playback, release the button.

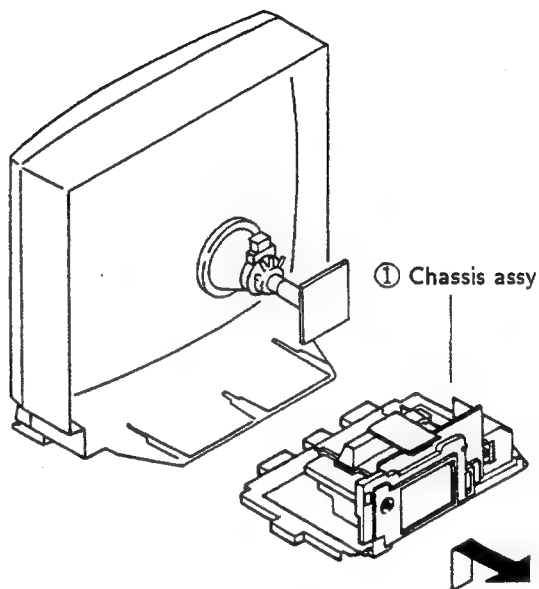


## SECTION 2 DISASSEMBLY

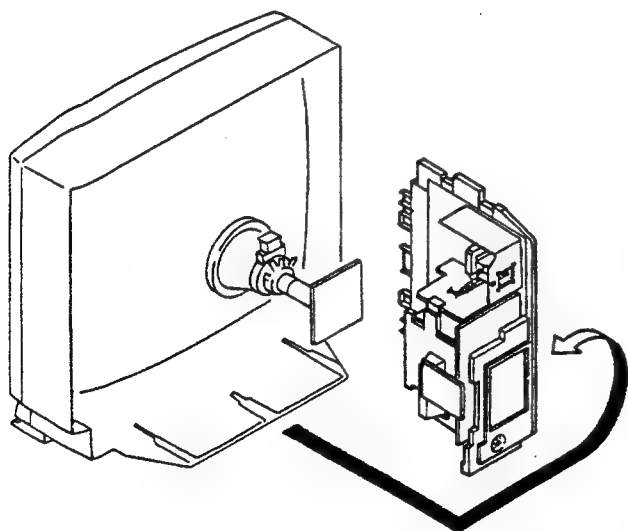
### 2-1. REAR COVER REMOVAL



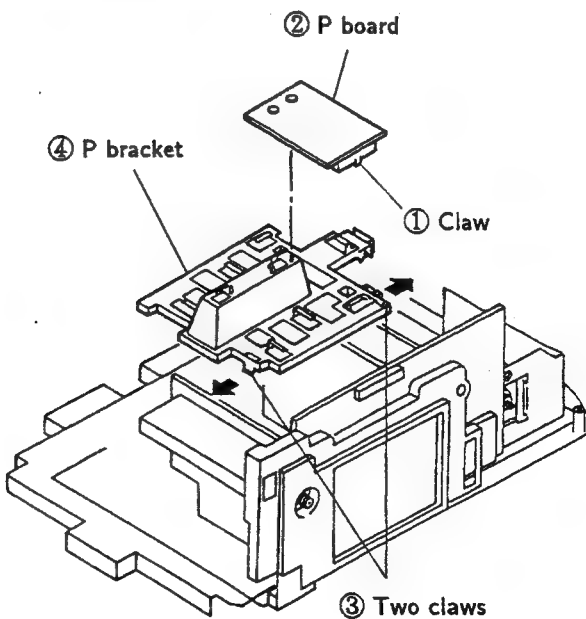
### 2-2. CHASSIS ASSY REMOVAL



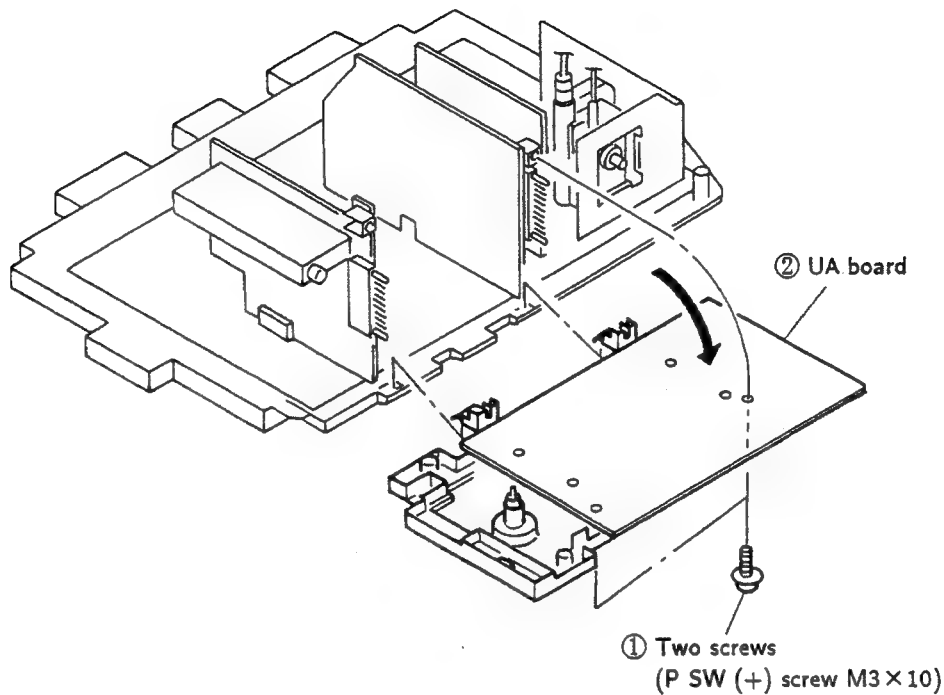
### 2-3. SERVICE POSITION



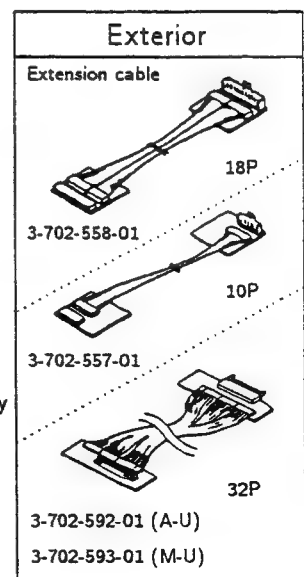
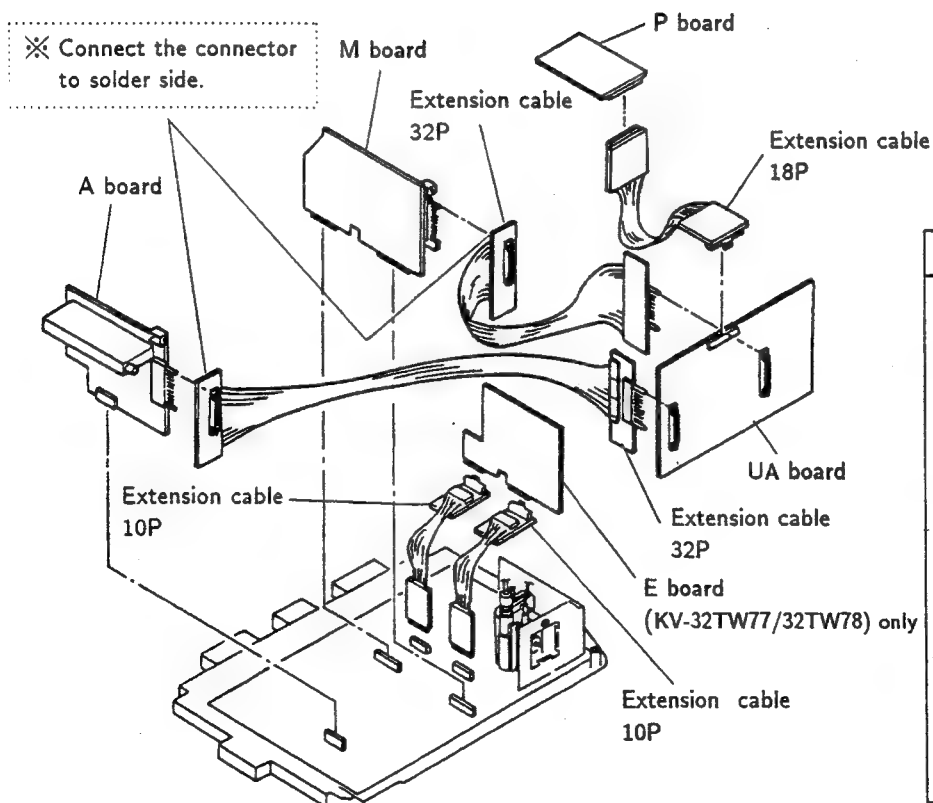
### 2-4. P BOARD AND P BRACKET REMOVAL (KV-32TS46 (UC/CND)/32TS36 (US/CND) /27TS36 (US/CND) only)



## 2-5. UA BOARD REMOVAL

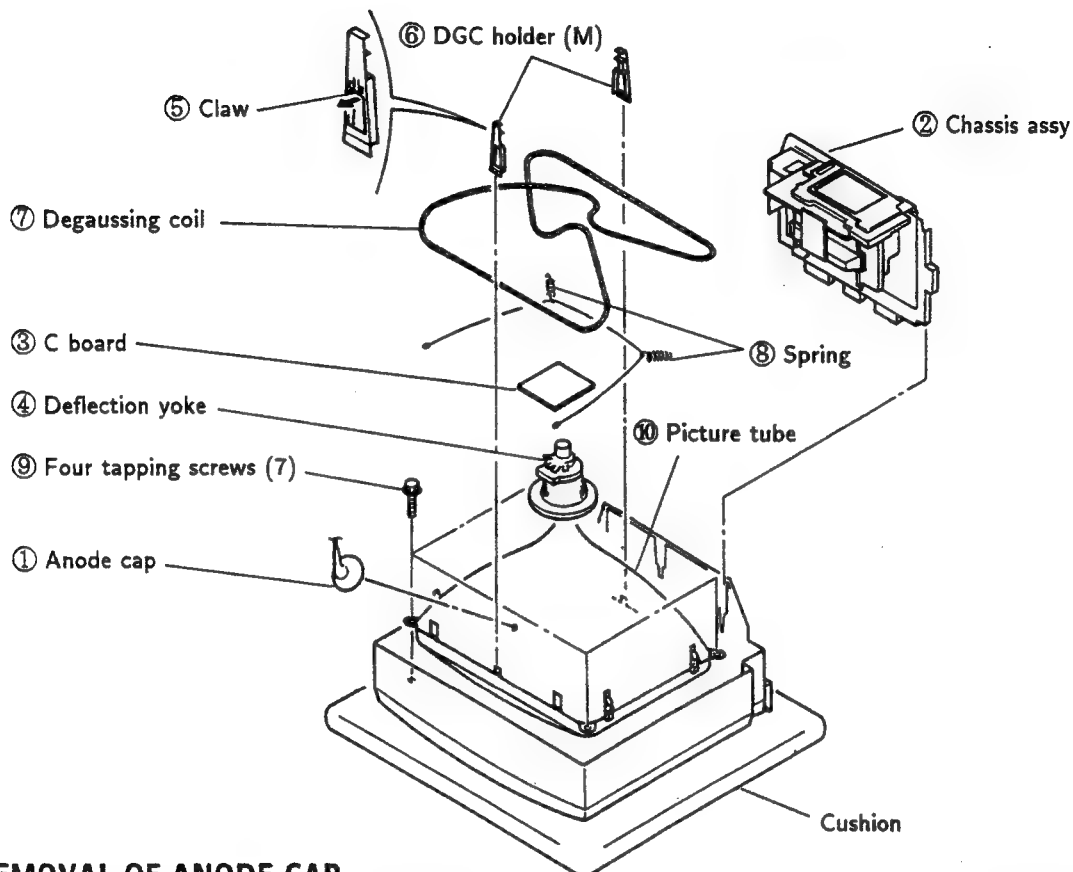


## 2-6. EXTENSION CABLE



## 2-7. PICTURE TUBE REMOVAL (1)

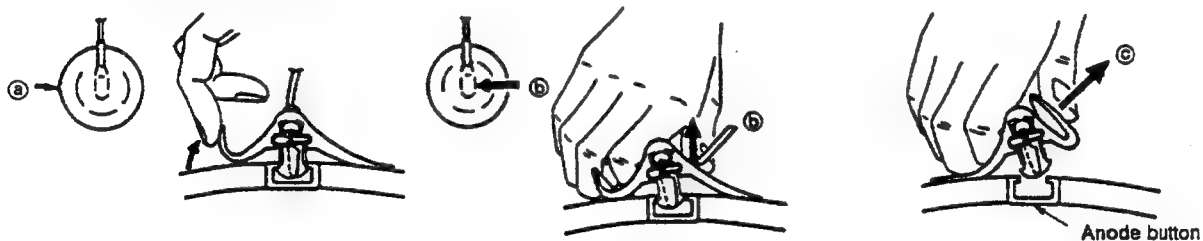
(KV-27TS36 (US/CND)/27TS32/27TS29 (US/CND) only)



### • REMOVAL OF ANODE-CAP

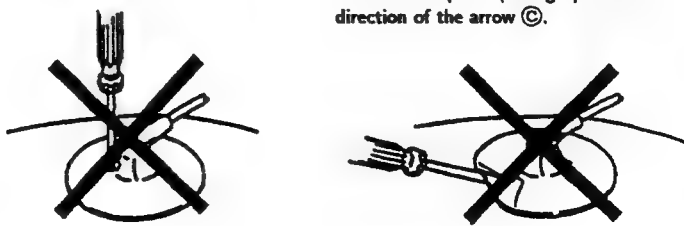
NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon painted on the CRT, after removing the anode.

### • REMOVING PROCEDURES



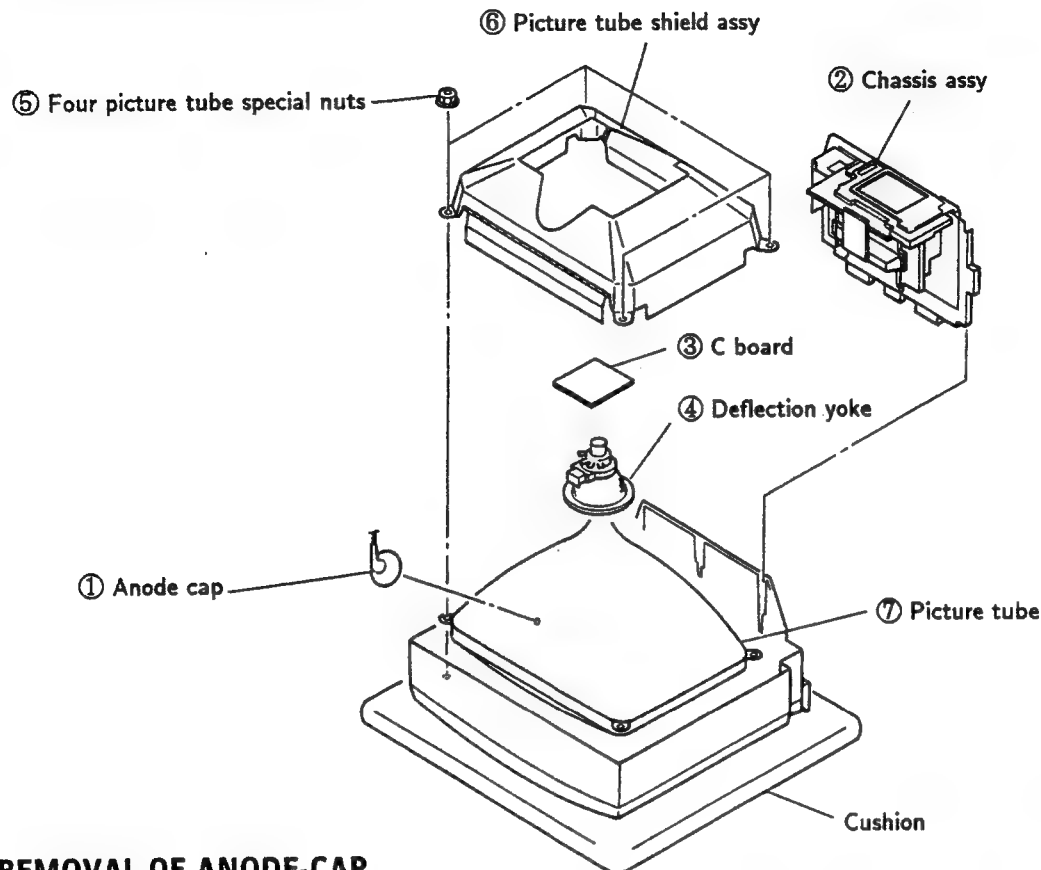
### • HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!  
A material fitting called as shatter-hook terminal is built in the rubber.  
Don't turn the foot of rubber over hardly!  
The shatter-hook terminal will stick out or hurt the rubber.
- ③



## 2.7. PICTURE TUBE REMOVAL (2)

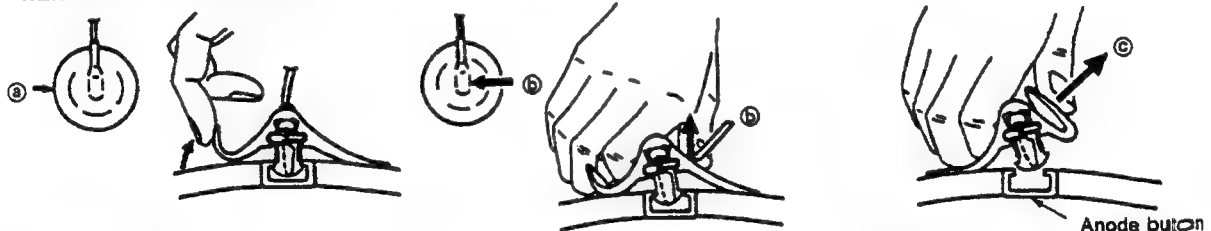
(KV-32TS46 (US/CND)/32TS36 (US/CND) only)



### • REMOVAL OF ANODE-CAP

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon painted on the CRT, after removing the anode.

### • REMOVING PROCEDURES



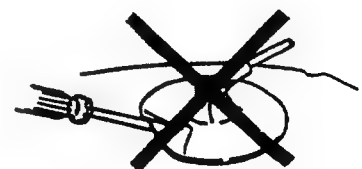
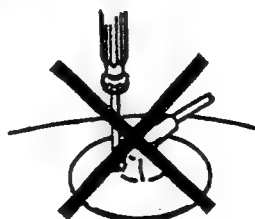
① Turn up one side of the rubber cap in the direction indicated by the arrow ①.

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ②.

③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ③.

### • HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!  
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!  
The shatter-hook terminal will stick out or hurt the rubber.



## 2-8. REPAIR OF CHIP COMPONENT CIRCUIT BOARD

### 2-8-1. POINTS OF COMPONENT REMOVAL

#### Handling of blower type soldering iron

If hot blast is too strong or applied from a slanting direction, small components and solder near the component being removed can be blown off. Do not use blower type without temperature control.

### 2-8-2. NOTES ON SOLDERING FOR CHIP COMPONENTS

- 1) During soldering a chip component, if a soldering iron is applied for a long time, the heat may damage the component or cause pattern peeling.
- 2) Do not reuse a removed component. The characteristics of such a component may deteriorate.
- 3) Use wire solder containing silver ( $\phi$  0.3 or  $\phi$  0.6). (The pin electrodes of the laminated chip capacitor are silver +palladium, so if wire solder which does not contain silver is used, the silver of the pin electrode will be sucked into the solder.)

### 2-8-3. REMOVAL AND MOUNTING OF COMPONENTS

#### Chip resistor and chip capacitor

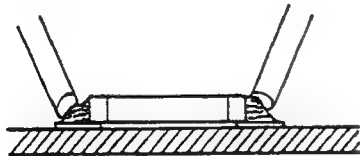
#### REMOVAL

- Using two soldering irons

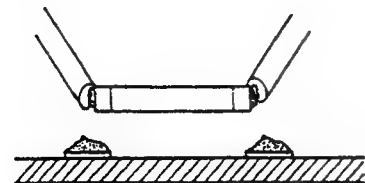
#### 1) Mounted state



#### 2) Melt the solder.

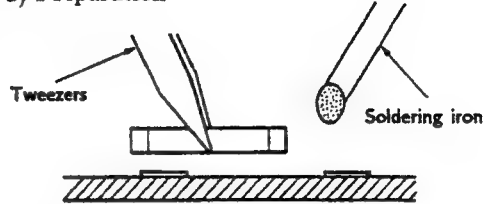


#### 3) Remove the component.



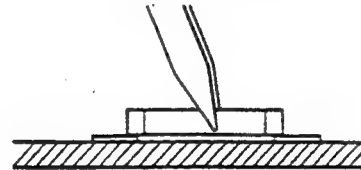
#### SOLDERING

#### 1) Preparation

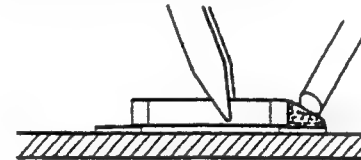


#### 2) Location

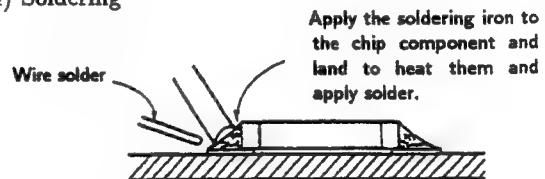
Be careful not to misposition.



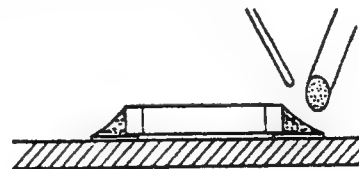
#### 3) Tack soldering and flux application



#### 4) Soldering



#### 5) Soldering (Fix the fillet.)



#### 6) Visual inspection

Check for the following defects :

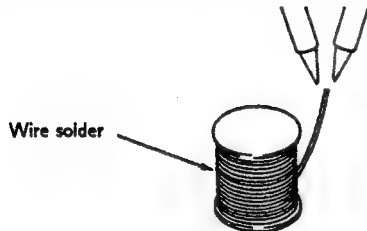
- No-soldered part
- Bridge (to other components or lands)
- Mispositioning
- Other defects

## 2-8-4. MINI-TRANSISTOR

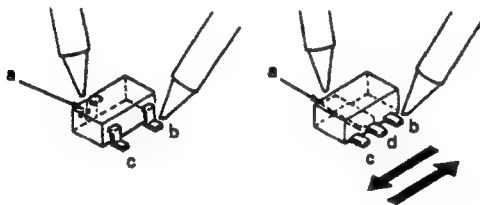
### REMOVAL

- Using two soldering irons

1) Put a little solder on the tip of two soldering irons.



2) Apply the tip of one soldering iron to the point "a" and the other to the points "b" → "c" (or "b" → "d" → "c") and move the component in the directions indicated by arrows in the figure to remove it.

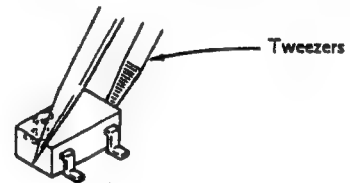


### MOUNTING

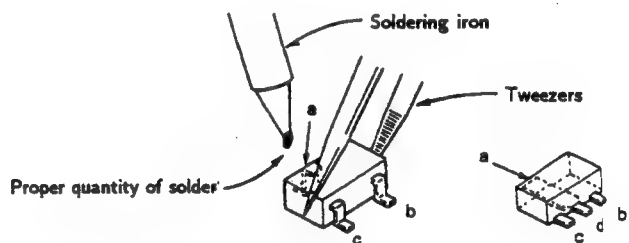
1) Apply a little flux to the land with a brush.



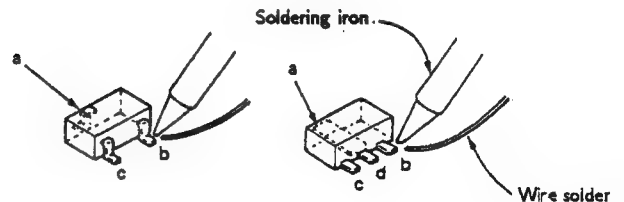
2) Place the component in position using tweezers.



3) Put a little solder on the tip of the soldering iron and solder the point "a" to fix the component.

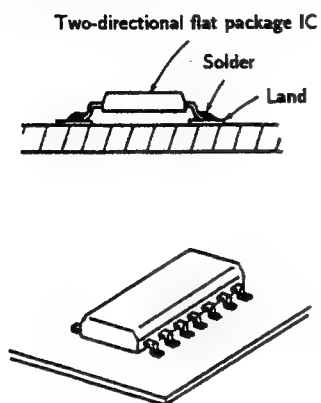


4) Bring the tip of the soldering iron and the wire solder close to the point to be soldered. Solder the points "b" → "c" (or "b" → "d" → "c") in order.

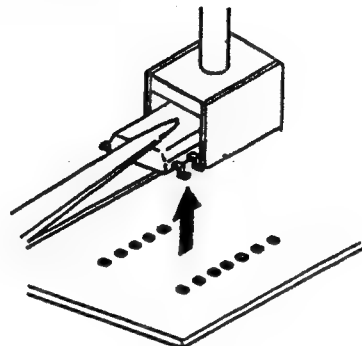


## 2-8-5. TWO-DIRECTIONAL FLAT PACKAGE IC

### MOUNT CONDITION

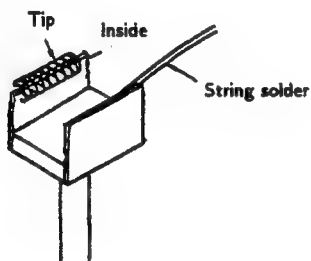


- When the solder melts, lift the IC with a pair of tweezers and remove.

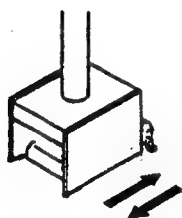


### REMOVAL

- Apply some solder on the inside and the tip of the iron tip jig.



- Place the iron tip jig over the IC, and move the jig to and fro as shown in the figure.

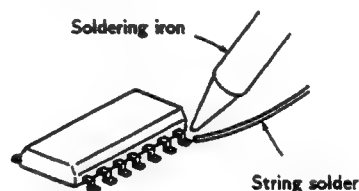


### INSTALLATION

- Place the two-directional flat package IC at the appointed position, solder pins a and b on the diagonal, and fasten it.

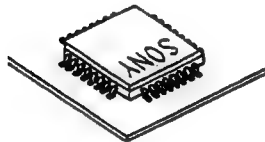
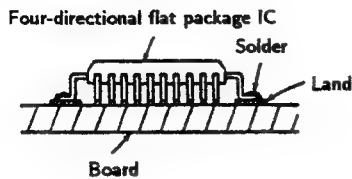


- Solder the remaining pins with the soldering iron.



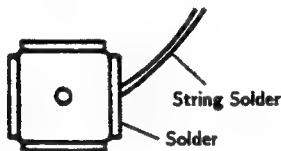
## 2-8-6. FOUR-DIRECTIONAL FLAT PACKAGE IC

### MOUNT CONDITION

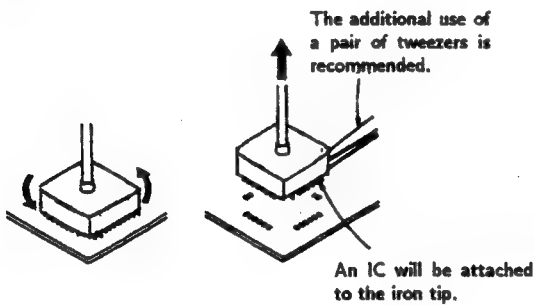


### REMOVAL

- 1) Apply solder on the tip of the iron tip jig.



- 2) Place the iron tip jig over the IC, wait about two to three seconds, rotate the iron slightly and lift it up.



Note: For flat ICs of above 52P, the IC may not be completely attracted when the iron tip jig is lifted up. In these cases, use a pair of tweezers to remove.

### INSTALLATION

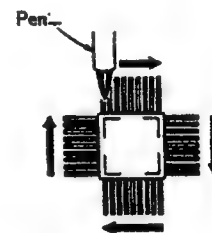
- 1) Place the four-directional flat package IC at the appointed position.



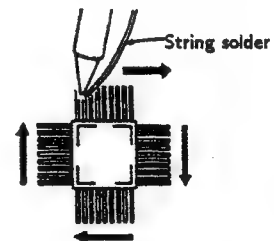
- 2) Apply a slight amount of solder on the iron tip, and solder the three sections in the order of a → b → c, and fix.



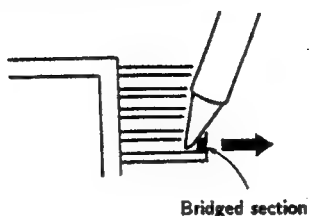
- 3) Apply a slight amount of flux with a pen on all four directions.



- 4) Apply solder on the iron tip and the string solder, and slide and solder in the directions of the arrows.



Note: 1) After soldering, if there are bridged sections, correct by sliding the soldering iron in the direction of the arrow.



If the bridges cannot be corrected using the above method, apply some flux with a pen and try again.

2) Soldering can be carried out more easily by sliding the iron tip near the tip of the IC leg. (Fig. A)

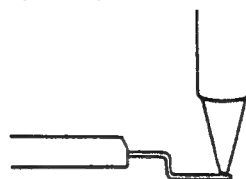


Fig. A

Be careful not to slide the bent sections of the leg as shown in Fig. B as soldering bridges will be formed.

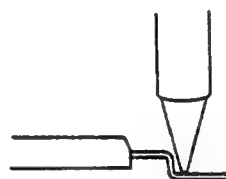
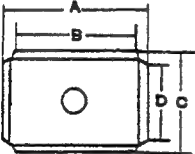
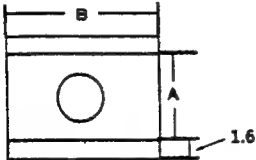
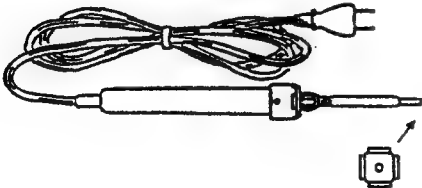



Fig. B

| Exterior  | Description                              | Part No.     | Measure (mm)               |      |      |      |
|---|--|--------------|----------------------------|------|------|------|
|   |  |              | A                          | B    | C    | D    |
|  | jig for removing 4-sided flat package IC | 3-702-554-01 | 12.5                       | 9.5  | 12.5 | 9.5  |
|   |  | " 11         | 15.5                       | 12.5 | 15.5 | 12.5 |
|   |  | " 21         | 16.3                       | 13.3 | 16.3 | 13.3 |
|   |  | " 31         | 17.0                       | 14.0 | 17.0 | 14.0 |
|   |  | " 41         | 23.0                       | 20.0 | 17.0 | 14.0 |
|   |  | " 51         | 20.0                       | 17.0 | 20.0 | 17.0 |
|  | jig for removing 2-sided flat package IC | 3-702-555-01 | 6.0                        | 5.0  |      |      |
|   |  | " 11         | 6.0                        | 10.0 |      |      |
|   |  | " 21         | 7.0                        | 12.5 |      |      |
|   |  | " 31         | 9.0                        | 15.2 |      |      |
|   |  | " 41         | 9.0                        | 18.0 |      |      |
|  | soldering iron                           | 3-702-552-01 | 55W<br>60g<br>length 210mm |      |      |      |
|  | soldering holder                         | 3-702-553-01 |                            |      |      |      |

## SECTION 3

### SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted :

PICTURE control . . . . . RESET  
BRIGHTNESS control . . . . . center

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

**Note :** Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

#### Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

#### 3-1. BEAM LANDING

1. Input the white signal with the pattern generator.  
Contrast } normal  
Brightness }
2. Set the pattern generator raster signal to green.
3. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.  
(See Figures 3-1 through 3-3.)
4. Move the deflection yoke forward and adjust so that entire screen is green. (See Figure 3-1.)
5. Switch the raster signal to blue, then to red and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
7. If the beam does not land correctly in all the corners, use a magnet to adjust it.  
(See Figure 3-4.)

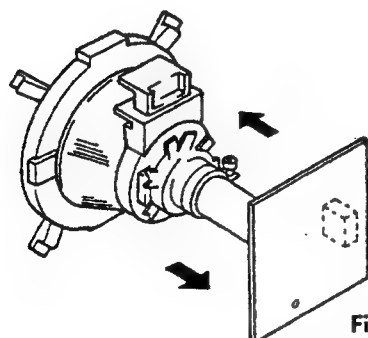


Fig.3-1

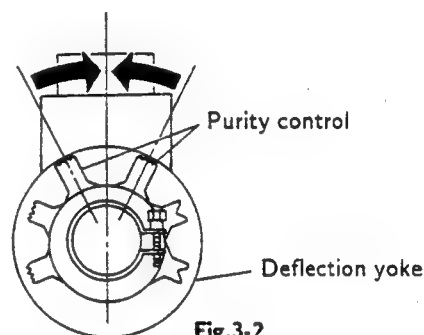


Fig.3-2

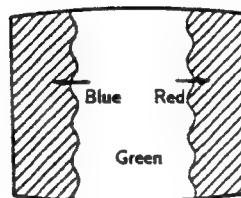


Fig.3-3

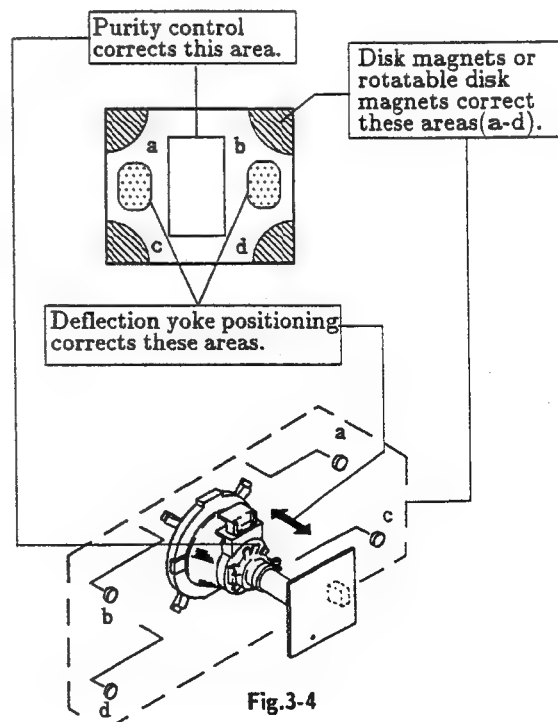


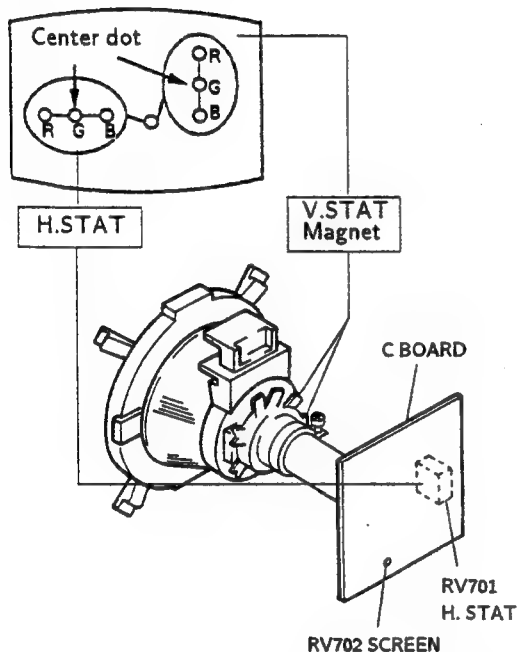
Fig.3-4

### 3-2. CONVERGENCE

#### Preparation :

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

#### (1) Horizontal and Vertical Static Convergence

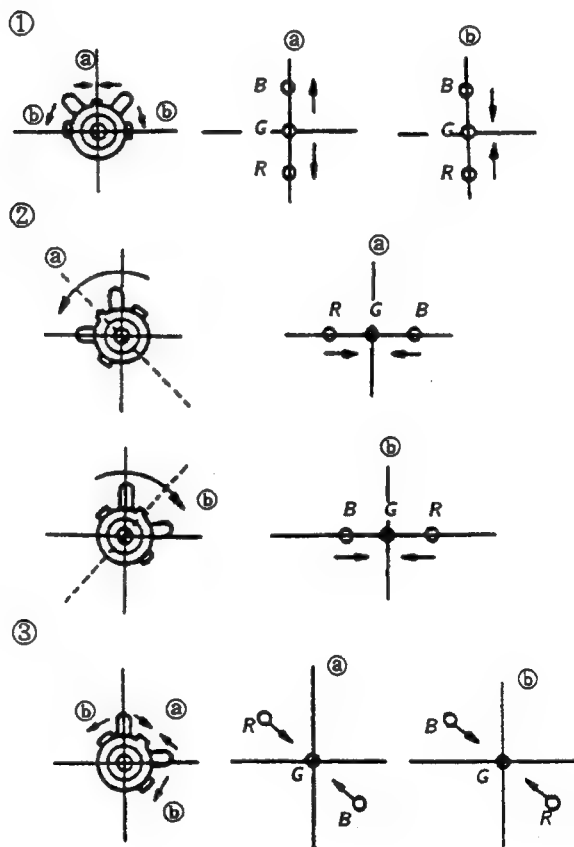


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.  
(In this case, the H.STAT variable resistor and the V. STAT magnet influence each other)

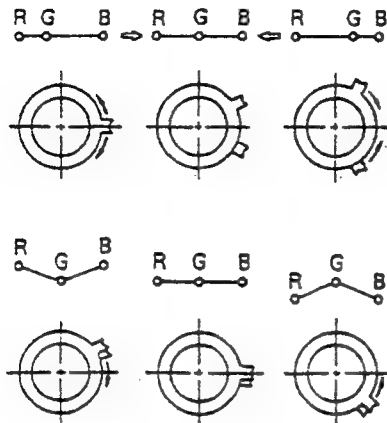
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.



● Operation of BMC (Hexapole) Magnet

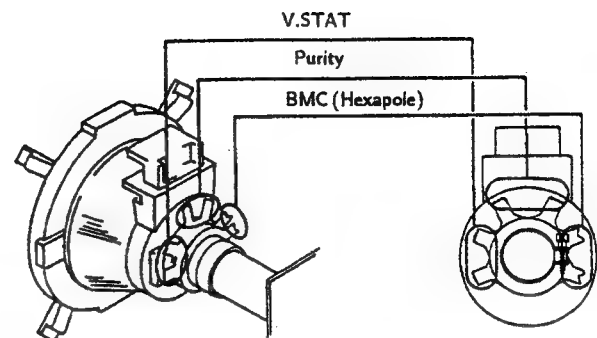


- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.  
Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

(2) Dynamic Convergence Adjustment

Preparations :

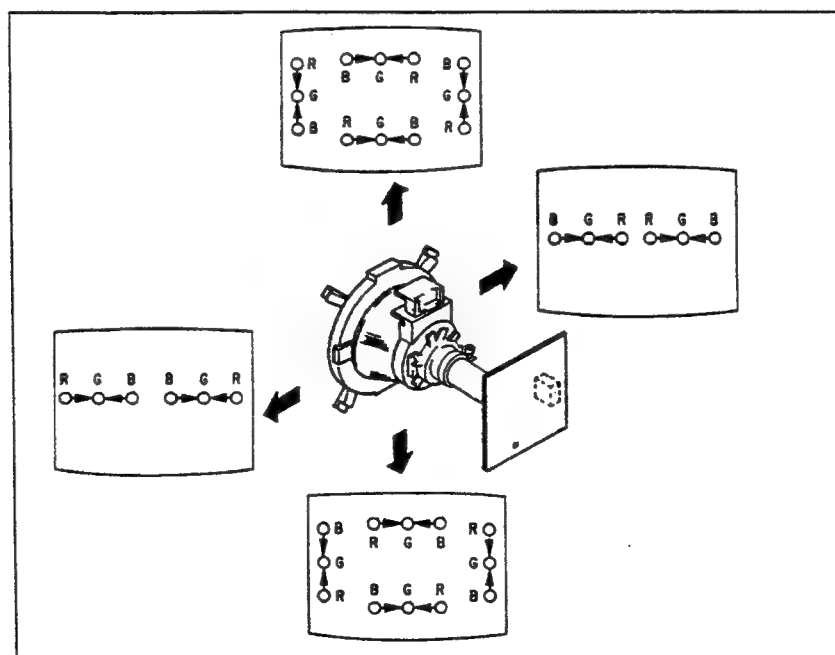
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
1. Slightly loosen the deflection yoke screws.
  2. Remove the deflection yoke spacer.



• Y separation axis correction magnet adjustment

1. Receive the cross-hatch signal, and adjust [PLX] to "MIN" and [BRT] to "standard".
2. Adjust the deflection yoke to the upright condition when it hits the CRT.
3. Adjust so that the Y separation axis correction magnet on the neck assembly is symmetrical at the top and bottom (open state).
4. Return the deflection yoke to its original position.

3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the deflection yoke spacer.

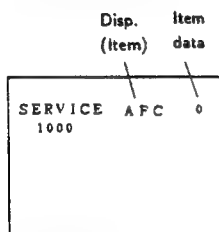


### (3) Dynamic Convergence Circuit Adjustment (32 inch only)

#### SERVICE MODE PROCEDURE

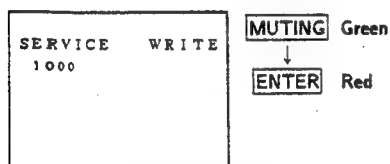
- Standby mode.(Power off)
- DISPLAY** → **5** → **VOL (+)** → **POWER** on the Remote Commander. (Press each button within a second.)

#### SERVICE ADJUSTMENT MODE IN

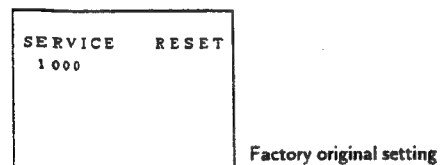


- The CRT displays the item Being adjusted.
- Press **1** or **4** on the Remote Commander to select the item.
- Press **3** or **6** on the Remote Commander to change the data.
- Press **MUTING** then **ENTER** to write into memory.

#### SERVICE ADJUSTMENT MODE MEMORY



- Press **8** then **ENTER** on the Remote Commander to initialize.



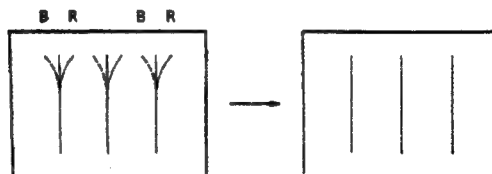
- Turn set off and on to exit.

- Set to Service Mode.
- Input a cross-hatch signal.
- Press **1** and **4** select an item of adjustments.
- Adjust **3** and **6** to the best picture.

| No. | Disp. | Item        | Ave.Data |
|-----|-------|-------------|----------|
| 39  | UYBO  | Upper Y-Bow | 31       |
| 40  | LYBO  | Lower Y-Bow | 25       |
| 41  | HAMP  | H. Amp      | 33       |
| 42  | HTIL  | H. Tilt     | 33       |
| 43  | UCBO  | Upper C-Bow | 38       |
| 44  | UTIL  | Upper Tilt  | 40       |
| 45  | LCBO  | Lower C-Bow | 41       |
| 46  | LTIL  | Lower Tilt  | 46       |
| 47  | DCSH  | DC Shift    | 37       |

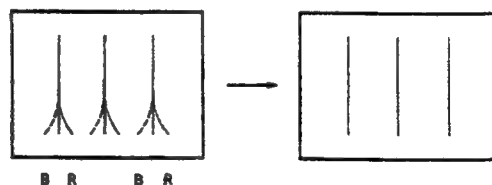
#### U. YBOW

Select UYBO with **1** and **4**



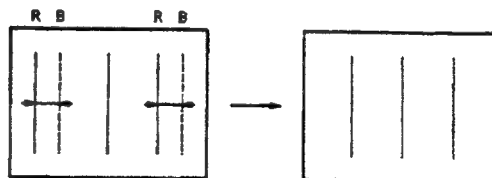
#### L. YBOW

Select LYBO with **1** and **4**



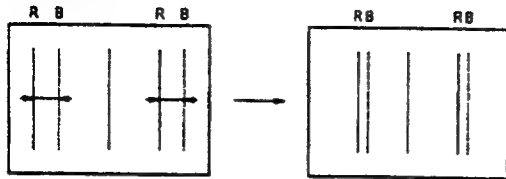
#### H. AMP

Select HAMP with **1** and **4**

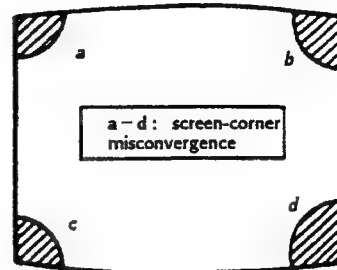


#### H. TILT

Select HTILT with **1** and **4**

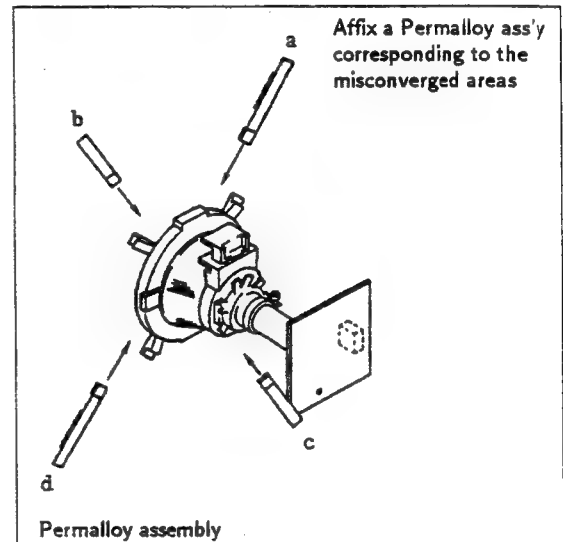
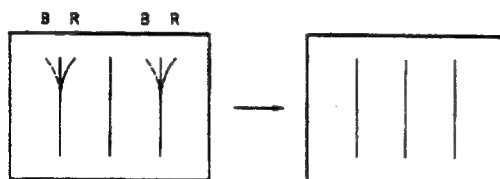


#### (4) Screen-corner Convergence



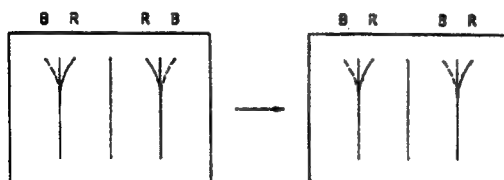
#### U. CBOW

Select UCBO with **1** and **4**



#### U. TILT

Select UTIL with **1** and **4**

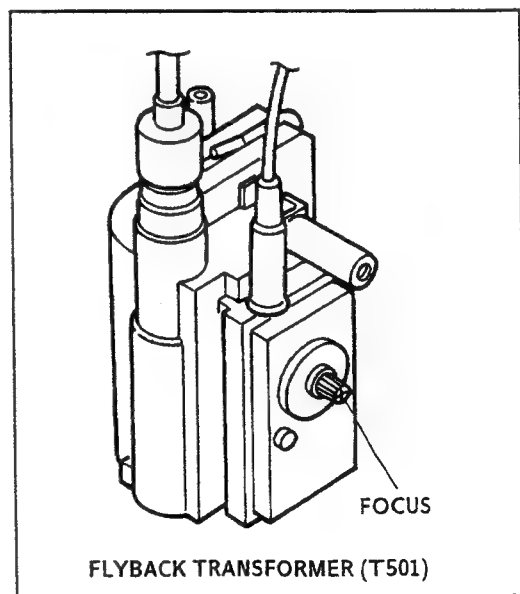
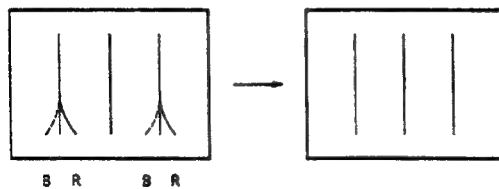


### 3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for a best focus.

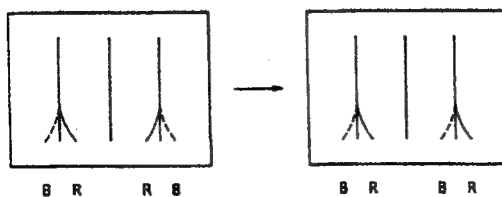
#### L. CBOW

Select LCBO with **1** and **4**



#### L. TILT

Select L. TIL with **1** and **4**



### 3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

#### 1. G2 (SCREEN) ADJUSTMENT(RV 702)

1. Set the PICTURE and BRIGHTNESS to normal.
2. Confirm G1 voltage is within  $30.0 \pm 5$  V.
3. Apply DC voltage of 180 V to the cathodes of R,G and B from DC stabilized power source.
4. While watching the picture, adjust the G2 control (RV 702) to the just the retrace line disappears.

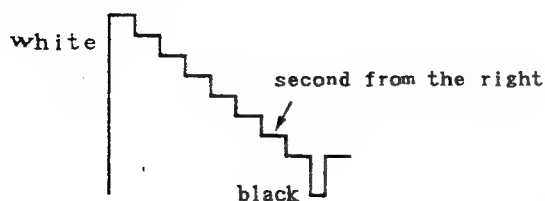
#### 2. WHITE BALANCE ADJUSTMENTS

| No. | Disp. | Item          | Ave. Data |
|-----|-------|---------------|-----------|
| 14  | GAMP  | Green Amp     | 20        |
| 15  | BAMP  | Blue Amp      | 17        |
| 16  | GCUT  | Green Cut-off | 7         |
| 17  | BCUT  | Blue Cut-off  | 8         |
| 22  | SBRT  | Sub Bright    | 35        |

1. Input an entire white signal.
2. Set to service adjustment mode.
3. Set the PICTURE and BRIGHT to minimum.
4. Adjust with SBRT if necessary.
5. Select G CUT and B CUT with **[1]** and **[4]**.
6. Adjust with **[3]** and **[6]** for the best white balance.
7. Set the PICTURE and BRIGHT to maximum.
8. Select GAMP and BAMP with **[1]** and **[4]**.
9. Adjust with **[3]** and **[6]** for the best white balance.
10. Write into the memory by pressing **[MUTING]** then **[ENTER]**.

#### 3. SUB BRIGHT ADJUSTMENT

1. Set to service mode.
2. Input a staircase signal of black and white from the pattern generator.
3. BRIGHTNESS ... RESET  
 PICTURE ..... minimum
4. Select SBRT with **[1]** and **[4]**, and adjust SUB BRIGHT level with **[3]** and **[6]** so that the stripe second from the right is dimly lit.



## SECTION 4 SAFETY RELATED ADJUSTMENTS

KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y118 RM-Y118  
SA-W200

KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y118 RM-Y118  
SA-W200

### ☒ R511 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ☒ on the schematic diagram).  
PM501, R338, R511, R632, R645, R650

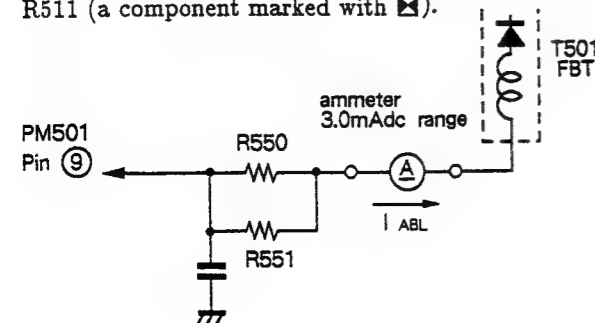
- ①
  1. Preparation before confirmation
    - 1) Remove R635 on the D board and connect a variable resistor (RV1: about 22kΩ) between pin ① of IC601 and B+ line.
    - 2) Supply  $130 \pm 2.0$  V AC to with variable auto-transformer.
  2. Hold-down operation confirmation
    - 1) Turn the POWER switch ON, and receive entirely white signals and adjust ABL current to  $1760 \pm 50 \mu\text{A}$  with PICTURE and BRIGHT etc controls.
    - 2) Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is less than 142.5V DC (27 inch) 140.0V DC (32 inch) whereby the raster disappears during operation of hold-down circuit.

**NOTE:** When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

  - 3) Turn the POWER switch ON, and receive dot signals and adjust ABL current to  $160 \pm 50 \mu\text{A}$  with PICTURE and BRIGHT etc controls.
  - 4) Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is less than 145.0V DC (27 inch), 143.5V DC (32 inch) whereby the raster disappears during operation of hold-down circuit.
- NOTE:** When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

#### 3. Hold-down readjustment

When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R511 (a component marked with ☒).



### ☒ R524 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ☒ on the schematic diagram).  
IC601, PM501, D504, C598, R338, R509, R524, R632, R635, R645, T501

- ②
  1. Preparation before confirmation
    - 1) Turn the POWER switch ON, and receive entirely white signals and set the PICTURE and BRIGHT controls to maximum.
    - 2) Confirm that voltage of the check terminal of TP-85 (D BOARD) is more than 114.0V DC (27 inch) 122.3V DC (32inch) when the set is operating normally with  $120.0 \pm 2.0$  V AC supply.
  2. Hold-down operation confirmation
    - 1) Turn the POWER switch ON, and receive entirely white signals and adjust ABL current to  $1760 \pm 50 \mu\text{A}$  with PICTURE and BRIGHT etc controls.
    - 2) Apply DC voltage of over 130.0V DC gradually to the check terminal of TP-85 (D BOARD) via 1T40 from the DC stabilized power source. Confirm that the minimum voltage is less than 137.5V DC (27inch) 143.5V DC (32inch) whereby the raster disappears during operation of hold-down circuit.

**NOTE:** When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

  - 3) Turn the POWER switch ON, and receive dot signals and adjust ABL current to  $160 \pm 50 \mu\text{A}$  with PICTURE and BRIGHT etc controls.
  - 4) Apply DC voltage of over 130.0V gradually to the check terminal of TP-85 (D BOARD) via 1 T40 from the DC stabilized power source. Confirm that the minimum voltage is less than 138.0V DC (27inch) 144.1V DC (32inch) whereby the raster disappears during operation of hold-down circuit.
- NOTE:** When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

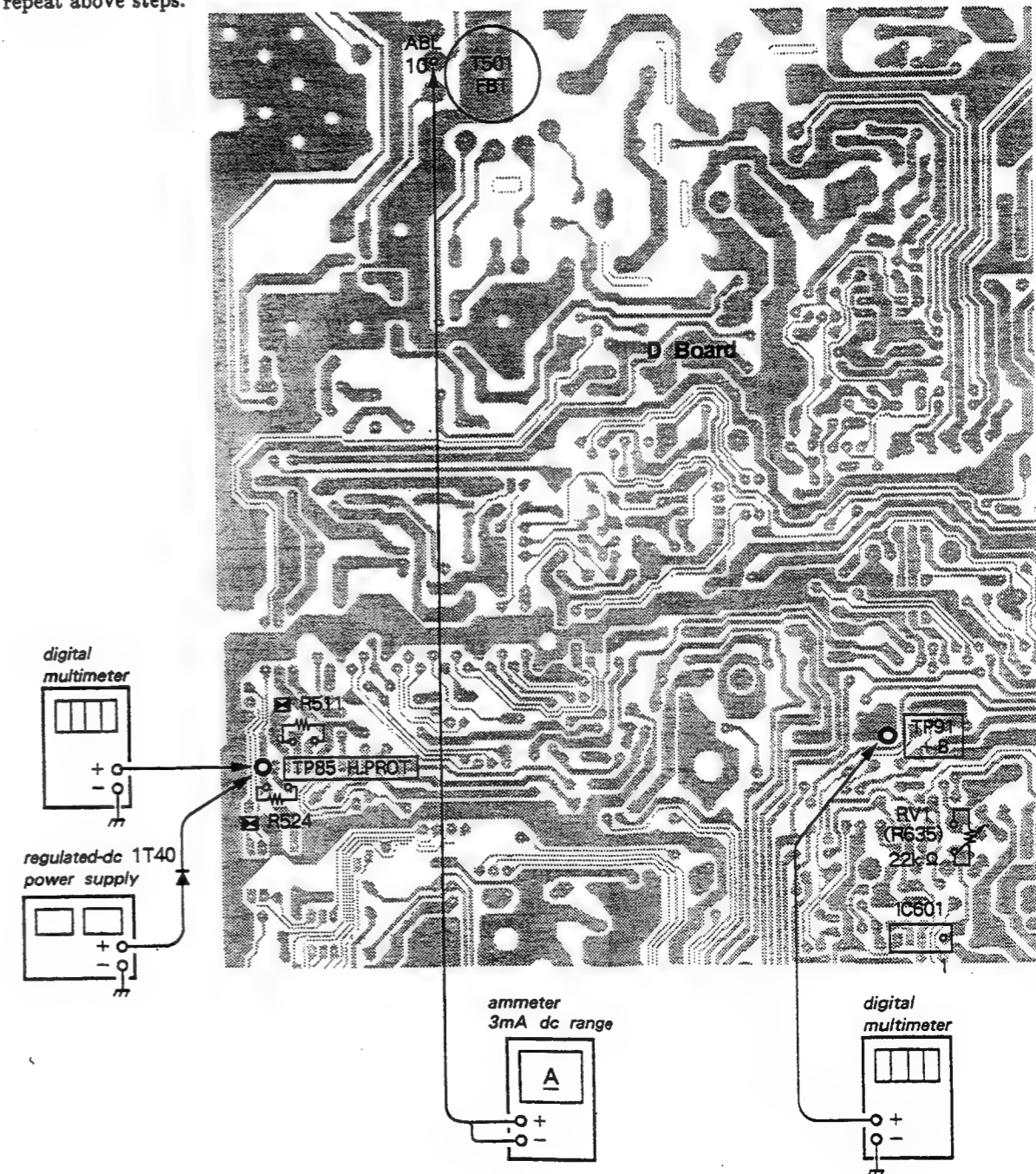
#### 3. Hold-down readjustment

When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R524 (a component marked with ☒).

### B+ VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC601 and R635.

- 1) Supply  $130 \pm 2.0$  V AC to with variable autotransformer.
- 2) Receive entirely monoscope signal.
- 3) Set the PICTURE control and the BRIGHT controls in to initial reset.
- 4) Confirm the voltage of TP91 is less than 137.0V DC.
- 5) If step 4) is not satisfied, replace IC601 and R635 repeat above steps.



## SECTION 5 CIRCUIT ADJUSTMENTS

KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y118 RM-Y118  
SA-W200

KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y118 RM-Y118  
SA-W200

### 5-1. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

Use of Remote Commander can be performed circuit adjustments about this model.

NOTE : Test Equipment Required.

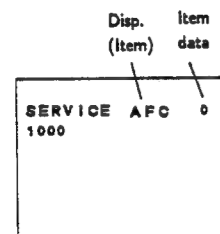
1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC

#### 1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

##### SERVICE MODE PROCEDURE

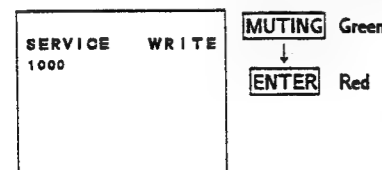
1. Standby mode.(Power off)
2. **DISPLAY** → **5** → **VOL (+)** → **POWER** on the Remote Commander. (Press each button within a second.)

##### SERVICE ADJUSTMENT MODE IN

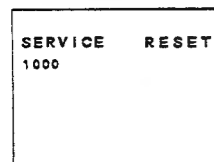


3. The CRT displays the item Being adjusted.
4. Press **1** or **4** on the Remote Commander to select the item.
5. Press **3** or **6** on the Remote Commander to change the data.
6. Press **MUTING** then **ENTER** to write into memory.

##### SERVICE ADJUSTMENT MODE MEMORY



7. Press **8** then **ENTER** on the Remote Commander to initialize.



Carry out step 7) when adjusting IDs 0 to 4 and when replacing and adjusting IC102.

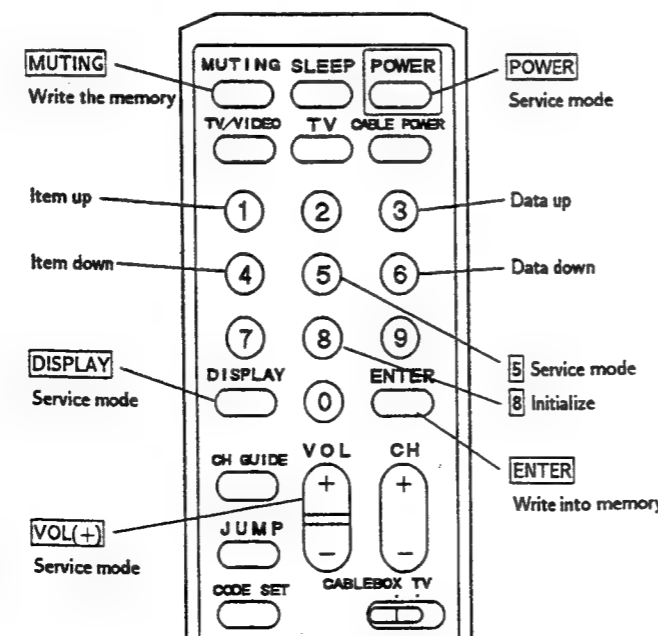
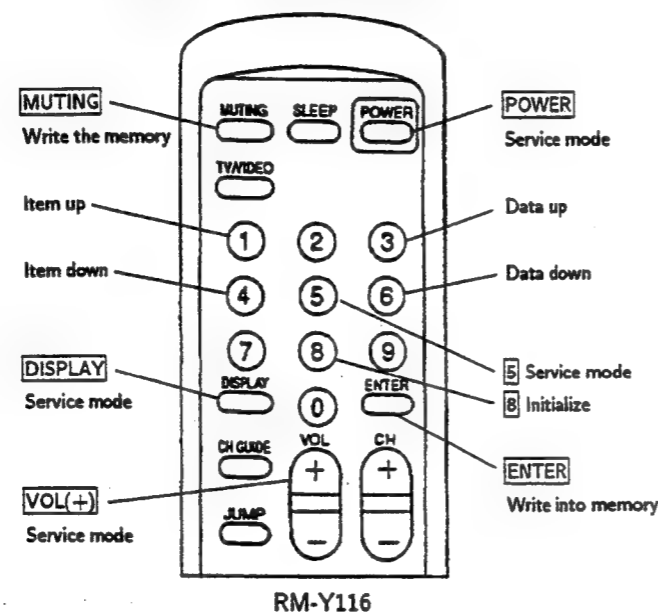
Factory original setting

8. Turn set off and on to exit.

#### 2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again, confirm they were adjusted.

#### 3. ADJUST BUTTONS AND INDICATOR



### 4. AN ITEM OF ADJUSTMENTS

| No. | Disp. | Item             | Data range | Ave. data (27 inch) | Ave. data (32 inch) |
|-----|-------|------------------|------------|---------------------|---------------------|
| 1   | AFC   | AFC Loop Gain    | 0~3        | * 0                 | * 0                 |
| 2   | HFRE  | H. Frequency     | 0~127      | 70                  | 70                  |
| 3   | VFRE  | V. Frequency     | 0~31       | 16                  | 16                  |
| 4   | VPOS  | V. Center        | 0~31       | 17                  | 17                  |
| 5   | VSIZ  | V. Size          | 0~63       | 28                  | 12                  |
| 6   | VLIN  | V. Linearity     | 0~15       | 8                   | 7                   |
| 7   | VSCO  | V. Correction    | 0~15       | 6                   | 6                   |
| 8   | HPOS  | H. Center        | 0~15       | 6                   | 5                   |
| 9   | HSIZ  | H. Size          | 0~31       | 31                  | 27                  |
| 10  | PAMP  | Pin Amp          | 0~31       | 24                  | 31                  |
| 11  | CPIN  | Corner Pin       | 0~7        | 3                   | 0                   |
| 12  | PPHA  | Pin Phase        | 0~15       | 6                   | 4                   |
| 13  | VCOM  | V. Compensation  | 0~7        | * 2                 | * 2                 |
| 14  | GAMP  | Green Amp        | 0~31       | 20                  | 20                  |
| 15  | BAMP  | Blue Amp         | 0~31       | 17                  | 17                  |
| 16  | GCUT  | Green Cut Off    | 0~15       | 7                   | 7                   |
| 17  | BCUT  | Blue Cut Off     | 0~15       | 8                   | 8                   |
| 18  | CROM  | Chroma Trap      | 0~63       | * 28                | * 28                |
| 19  | SPIX  | Sub Contrast     | 0~63       | 20                  | 20                  |
| 20  | SHUE  | Sub Hue          | 0~63       | 33                  | 33                  |
| 21  | SCOL  | Sub Color        | 0~63       | 32                  | 32                  |
| 22  | SBRT  | Sub Bright       | 0~63       | 35                  | 35                  |
| 23  | RGBP  | RGB Picture      | 0~63       | * 10                | * 10                |
| 24  | SHAP  | Sharpness        | 0~15       | * 7                 | * 7                 |
| 25  | VSMO  | V Pull in Range  | 0, 1       | * 0                 | * 0                 |
| 26  | REF   | Reference line   | 0~3        | * 2                 | * 2                 |
| 27  | ROFF  | Red Out          | 0, 1       | 1                   | 1                   |
| 28  | GOFF  | Green Out        | 0, 1       | 1                   | 1                   |
| 29  | BOFF  | Blue Out         | 0, 1       | 1                   | 1                   |
| 30  | ABLM  | ABL Mode         | 0, 1       | * 0                 | * 0                 |
| 31  | NOTC  | Notch On/Off     | 0, 1       | * 1                 | * 1                 |
| 32  | DRGB  | OSD intensity    | 0, 1       | * 0                 | * 0                 |
| 33  | VANG  | V. Angle         | 0~63       | 0                   | 0                   |
| 34  | DISP  | Display Position | 0~63       | 40                  | 40                  |
| 35  | SVOL  | Sub Volume       | 0~15       | * 0                 | * 0                 |
| 36  | SBAL  | Sub Balance      | 0~15       | 7                   | 7                   |
| 37  | BASS  | Sub Bass         | 0~15       | * 8                 | * 8                 |
| 38  | TRE   | Sub Treble       | 0~15       | * 7                 | * 7                 |
| 39  | UYBO  | Upper Y. Bow     | 0~63       | —                   | 31                  |
| 40  | LYBO  | Lower Y. Bow     | 0~63       | —                   | 25                  |
| 41  | HAMP  | H. Amp           | 0~63       | —                   | 33                  |
| 42  | HTIL  | H. Tilt          | 0~63       | —                   | 33                  |
| 43  | UCBO  | Upper C. Bow     | 0~63       | —                   | 38                  |
| 44  | UTIL  | Upper Tilt       | 0~63       | —                   | 40                  |
| 45  | LCBO  | Lower C. Bow     | 0~63       | —                   | 41                  |
| 46  | LTIL  | Lower Tilt       | 0~63       | —                   | 46                  |
| 47  | DCSH  | DC. Shift        | 0~63       | —                   | 37                  |
| 48  | PHPO  | PinP H Position  | 0~127      | 76                  | 76                  |
| 49  | PHUE  | PinP Hue         | 0~31       | * 0                 | * 0                 |
| 50  | ID-0  | Model ID         | 0~127      | by Model            | by Model            |
| 51  | ID-1  | Model ID         | 0~127      | by Model            | by Model            |
| 52  | ID-2  | Model ID         | 0~127      | by Model            | by Model            |
| 52  | ID-2  | Model ID         | 0~127      | by Model            | by Model            |
| 52  | ID-2  | Model ID         | 0~127      | by Model            | by Model            |
| 53  | ID-3  | Model ID         | 0~127      | by Model            | by Model            |
| 54  | ID-4  | Model ID         | 0~127      | by Model            | by Model            |

\* : Set-up value

Note : No. from 1 to 54 is to show adjustment order.

|         |          |    |
|---------|----------|----|
| SERVICE | ID 0     | 64 |
| 1000    | 1000 000 |    |

Please adjust the function values as shown below when IC 102 on M board was replaced.

#### KV-27TS29 (US)

| No. | Disp. | Disp.         | Data |
|-----|-------|---------------|------|
| 50  | ID-0  | 1 0 0 0 0 0 0 | 64   |
| 51  | ID-1  | 1 1 1 1 1 1 1 | 127  |
| 52  | ID-2  | 1 0 0 0 0 0 0 | 64   |
| 53  | ID-3  | 0 0 0 0 0 0 0 | 0    |
| 54  | ID-4  | 0 0 1 0 0 0 0 | 16   |

#### KV-27TS29 (CND)

| No. | Disp. | Disp.         | Data |
|-----|-------|---------------|------|
| 50  | ID-0  | 1 0 0 0 0 0 0 | 64   |
| 51  | ID-1  | 1 1 1 1 1 1 1 | 127  |
| 52  | ID-2  | 0 0 0 0 0 0 0 | 0    |
| 53  | ID-3  | 0 0 0 0 0 0 0 | 0    |
| 54  | ID-4  | 0 0 1 0 0 0 0 | 16   |

#### KV-27TS32 (US)

| No. | Disp. | Disp.         | Data |
|-----|-------|---------------|------|
| 50  | ID-0  | 1 1 1 1 0 0 0 | 120  |
| 51  | ID-1  | 1 1 1 1 1 1 1 | 127  |
| 52  | ID-2  | 1 1 0 1 0 0 0 | 104  |
| 53  | ID-3  | 0 0 0 0 0 0 0 | 0    |
| 54  | ID-4  | 0 0 1 0 0 0 0 | 16   |

#### KV-27TS36/32TS36 (US)

| No. | Disp. | Disp.         | Data |
|-----|-------|---------------|------|
| 50  | ID-0  | 1 1 1 1 0 0 0 | 120  |
| 51  | ID-1  | 1 1 1 1 1 1 1 | 127  |
| 52  | ID-2  | 1 0 0 1 0 0 0 | 72   |
| 53  | ID-3  | 1 0 0 0 0 0 0 | 64   |
| 54  | ID-4  | 0 0 1 0 0 0 0 | 16   |

#### KV-27TS36/32TS36 (CND)

| No. | Disp. | Disp.         | Data |
|-----|-------|---------------|------|
| 50  | ID-0  | 1 1 1 1 0 0 0 | 120  |
| 51  | ID-1  | 1 1 1 1 1 1 1 | 127  |
| 52  | ID-2  | 0 0 0 1 0 0 0 | 8    |
| 53  | ID-3  | 1 0 0 0 0 0 0 | 64   |
| 54  | ID-4  | 0 0 1 0 0 0 0 | 16   |

#### KV-32TS46 (US)

| No. | Disp. | Disp.         | Data |
|-----|-------|---------------|------|
| 50  | ID-0  | 1 1 1 1 0 0 0 | 120  |
| 51  | ID-1  | 1 1 1 1 1 1 1 | 127  |
| 52  | ID-2  | 1 0 0 1 0 0 0 | 72   |
| 53  | ID-3  | 0 1 0 0 1 0 0 | 36   |
| 54  | ID-4  | 0 0 1 0 0 0 0 | 16   |

#### KV-32TS46 (CND)

| No. | Disp. | Disp.         | Data |
|-----|-------|---------------|------|
| 50  | ID-0  | 1 1 1 1 0 0 0 | 120  |
| 51  | ID-1  | 1 1 1 1 1 1 1 | 127  |
| 52  | ID-2  | 0 0 0 1 0 0 0 | 8    |
| 53  | ID-3  | 0 1 0 0 1 0 0 | 36   |
| 54  | ID-4  | 0 0 1 0 0 0 0 | 16   |

## 5-2. M BOARD ADJUSTMENTS

### H.FREQUENCY ADJUSTMENT (HFRE)

1. Input a color-bar signal.
2. Set to Service adjustment Mode.
3. Connect a frequency counter to CN131 Pin③ (H. DRIVE) connector and ground.
4. Call the item of AFC, set to 3 level (free run).
5. Select HFRE with **[1]** and **[4]**.
6. Adjust with **[3]** and **[6]** for the  $15734 \pm 60\text{Hz}$ .
7. Call the item of AFC again, adjust the level "0".
8. Write into the memory by pressing **[MUTING]** then **[ENTER]**.

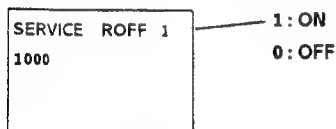
### V.FREQUENCY ADJUSTMENT (VFRE)

1. Select video 1 with no connecting the signal.
2. Set to Service adjustment Mode.
3. Connect the frequency counter across connector CN131 Pin⑦ (V. DRIVE) connector and ground.
4. Select VFRE with **[1]** and **[4]**.
5. Adjust with **[3]** and **[6]** for the  $55 \pm 0.5\text{Hz}$ .
6. Write the memory by pressing **[MUTING]** then **[ENTER]**.

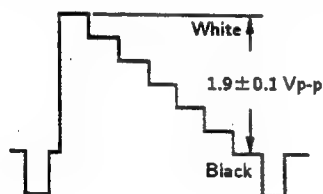
**SUB CONTRAST ADJUSTMENT (SPIX)**

1. Input a color-bar signal.
2. Set to Service adjustment Mode.
3. Set the conditions as follows.

PICTURE ..... MAX  
 COLOR ..... MIN  
 BRIGHT ..... CENTER  
 R OFF ..... ON (1)  
 G OFF ..... OFF (0)  
 B OFF ..... OFF (0)



4. Connect an oscilloscope to CN703 Pin① (R OUT) of C board and ground.
5. Select SPIX with [1] and [4].
6. Adjust with [3] and [6] for the  $1.9 \pm 0.1$  Vp-p.

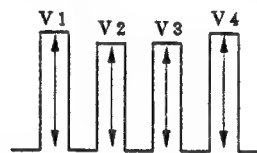


7. Write the memory by pressing [MUTING] then [ENTER].
8. Return the following back to normal after adjustment.

PICTURE ..... MAX  
 BRIGHT ..... CENTER  
 COLOR ..... CENTER  
 R OFF ..... ON  
 G OFF ..... ON  
 B OFF ..... ON

**SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)**

1. Input a color-bar signal.
2. Set to service adjustment mode.
3. Connect an oscilloscope to CN703 Pin③ (B OUT) of C board.
4. Select SHUE and SCOL with [1] and [4].
5. Adjust with [3] and [6] for the  $V1=V4$  (SCOL) and  $V2=V3$  (SHUE).



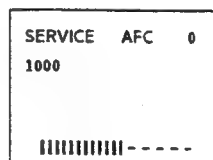
6. Increase the data of SCOL by 5 steps.
7. Write into the memory by pressing [MUTING] then [ENTER].

**SUB BARANCE ADJUSTMENT (SBAL)**

1. Input a stereo signal.
2. Set to service adjustment mode.
3. Select SBAL with [1] and [4].
4. Adjust with [3] and [6] for the best sound balance
5. Write into the memory by pressing [MUTING] then [ENTER].

**DISPLAY POSITION ADJUSTMENT (DISP)**

1. Input a color-bar signal.
2. Set to service adjustment Mode.
3. Select DISP with [1] and [4].
4. Adjust with [3] and [6] for the bar center.
5. Write the memory by pressing [MUTING] then [ENTER].

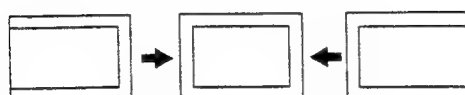


### H.CENTER ADJUSTMENT (H POS)

Note: Perform this adjustment after H.FREQUENCY ADJUSTMENT (HFRE).

1. Input a cross-hatch signal.
2. Set the Service adjustment mode.
3. Select HPOS with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** to the best horizontal center.
5. Write into the memory by pressing **MUTING** then **ENTER**.

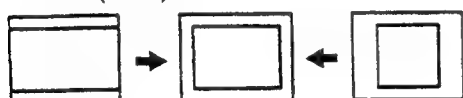
H. CENTER (HPOS)



### H.SIZE ADJUSTMENT (HSIZ)

1. Input a cross-hatch signal.
2. Set to service adjustment Mode.
3. Select HSIZ with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for best horizontal size.
5. Write into the memory by pressing **MUTING** then **ENTER**.

H. SIZE (HSIZ)



### V.CENTER ADJUSTMENT (VPOS)

1. Input a cross-hatch signal.
2. Set to service adjustment Mode.
3. Select VPOS with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best vertical center.
5. Write into the memory by pressing **MUTING** then **ENTER**.

V. CENTER (VPOS)



### V.SIZE ADJUSTMENT (VSIZ)

1. Input a cross-hatch signal.
2. Set to service adjustment Mode.
3. Select VSIZ with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best vertical size.
5. Write into the memory by pressing **MUTING** then **ENTER**.

V. SIZE (VSIZ)



### V LINEARITY (VLIN), VS CORRECTION (VSCO), PIN AMP (PAMP), CORNER PIN (CPIN), AND PIN PHASE (PPHA) ADJUSTMENTS

1. Input a cross-hatch signal.
2. Set to Service adjustment Mode.
3. Select VLIN, VSCO, PAMP, CPIN, and PPHA with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best picture.
5. Write the memory by Pressing **MUTING** then **ENTER**.

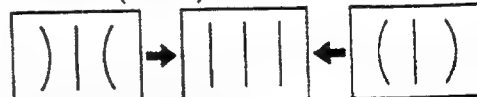
V LINEARITY (VLIN)



VS CORRECTION (VSCO)



PIN AMP (PAMP)



CORNER PIN (CPIN)

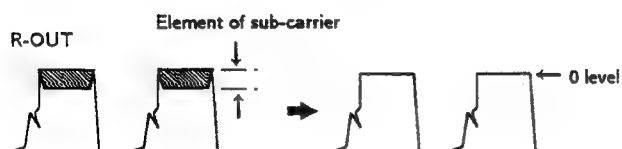


PIN PHASE (PPHA)



### CROMA TRAP ADJUSTMENT (CROM)

1. Input a red signal
2. Set to Service adjustment Mode.
3. Connect an oscilloscope CN703 Pin① (R OUT) of C board ground.
4. Select CROM with **[1]** and **[4]**.
5. Adjust with **[3]** and **[6]** for the 0 level.

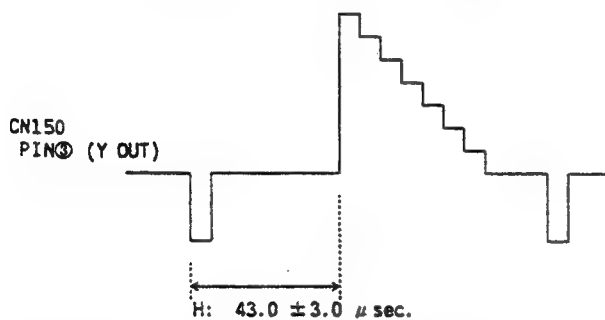


6. Write the memory by pressing **MUTING** then **ENTER**.

### 5-3. P BOARD ADJUSTMENTS

#### P IN P H. POSITION (PHPO)

1. Input a color-bar signal
2. Set to Service adjustment Mode.
3. Connect an oscilloscope CN150 Pin③ (Y OUT).
4. Select PHPO with **[1]** and **[4]**.
5. Adjust with **[3]** and **[6]** for the  $43.0 \pm 3.0 \mu\text{sec}$  (H).



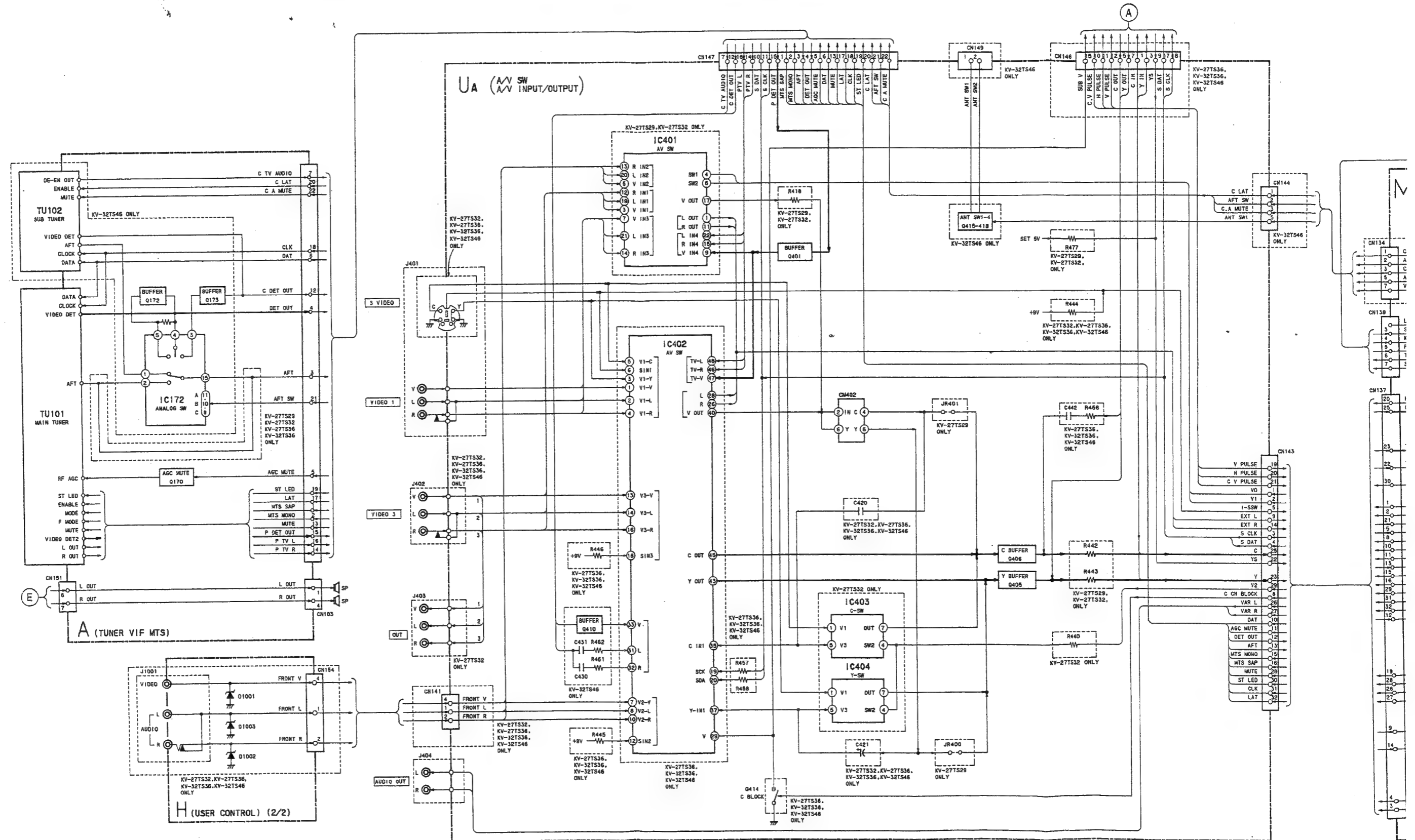
6. Write the memory by pressing **MUTING** then **ENTER**.

# 6-1. BLOCK DIAGRAMS (1)

## SECTION 6 DIAGRAMS

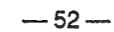
KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y116 RM-Y118  
SA-W200

KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y116 RM-Y118  
SA-W200

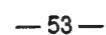


**KV-27TS29/27TS32/27TS36**  
RM-Y118 RM-Y117 RM-Y118

**KV-32TS36/32TS46**  
RM-Y118 RM-Y118  
SA-W200



**KV-27TS29/27TS32/27TS36**      **KV-27TS29/27TS32/27TS36**  
 RM-Y116   RM-Y117   RM-Y118      RM-Y116   RM-Y117   RM-Y118  
**KV-32TS36/32TS46**      **KV-32TS36/32TS46**  
 RM-Y118   RM-Y118   SA-W200      RM-Y118   RM-Y118   SA-W200



**KV-27TS29/27TS32/27TS36**  
RM-Y116 RM-Y117 RM-Y118

**KV-32TS36/32TS46**  
RM-Y118 RM-Y118  
SA-W200

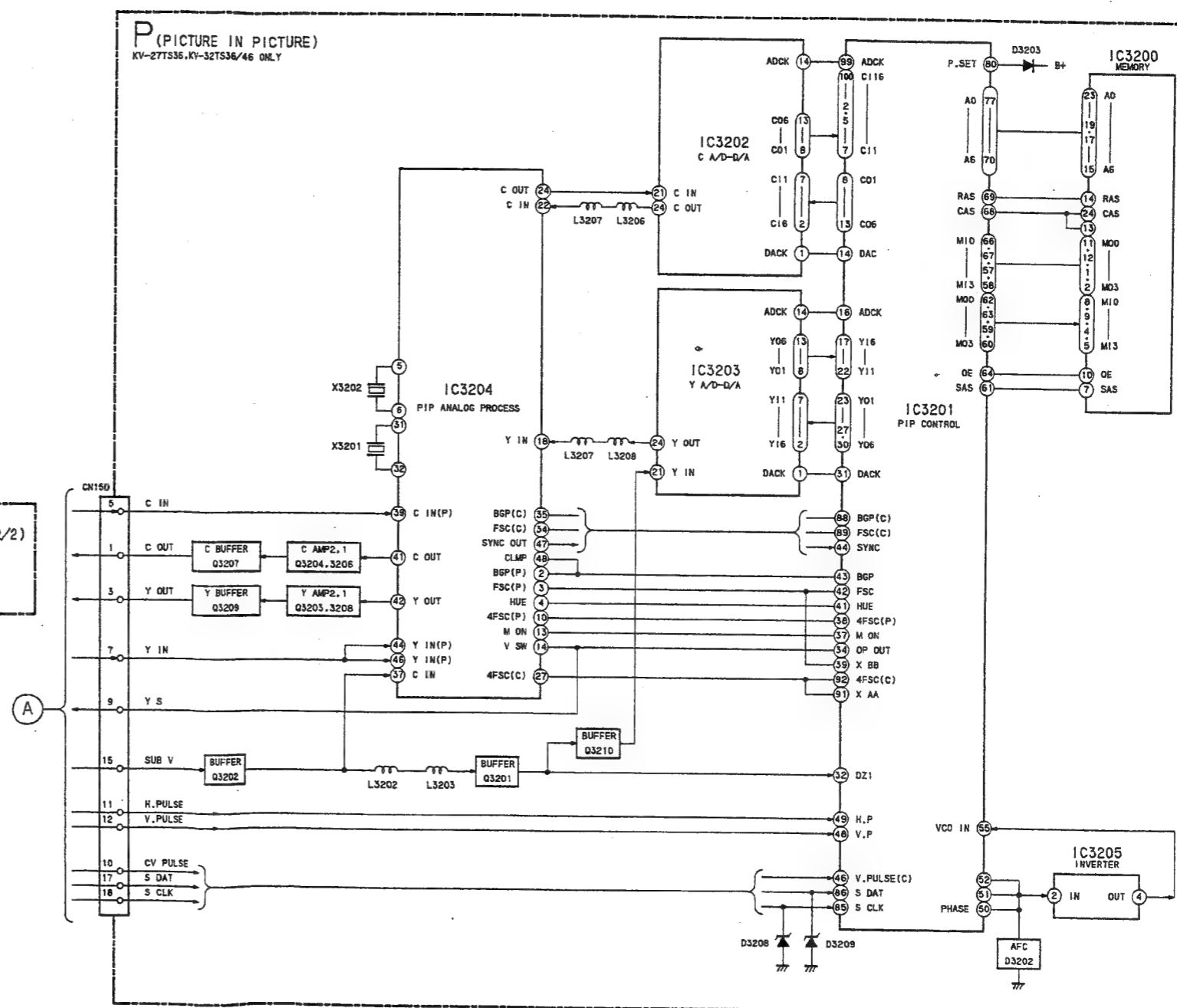
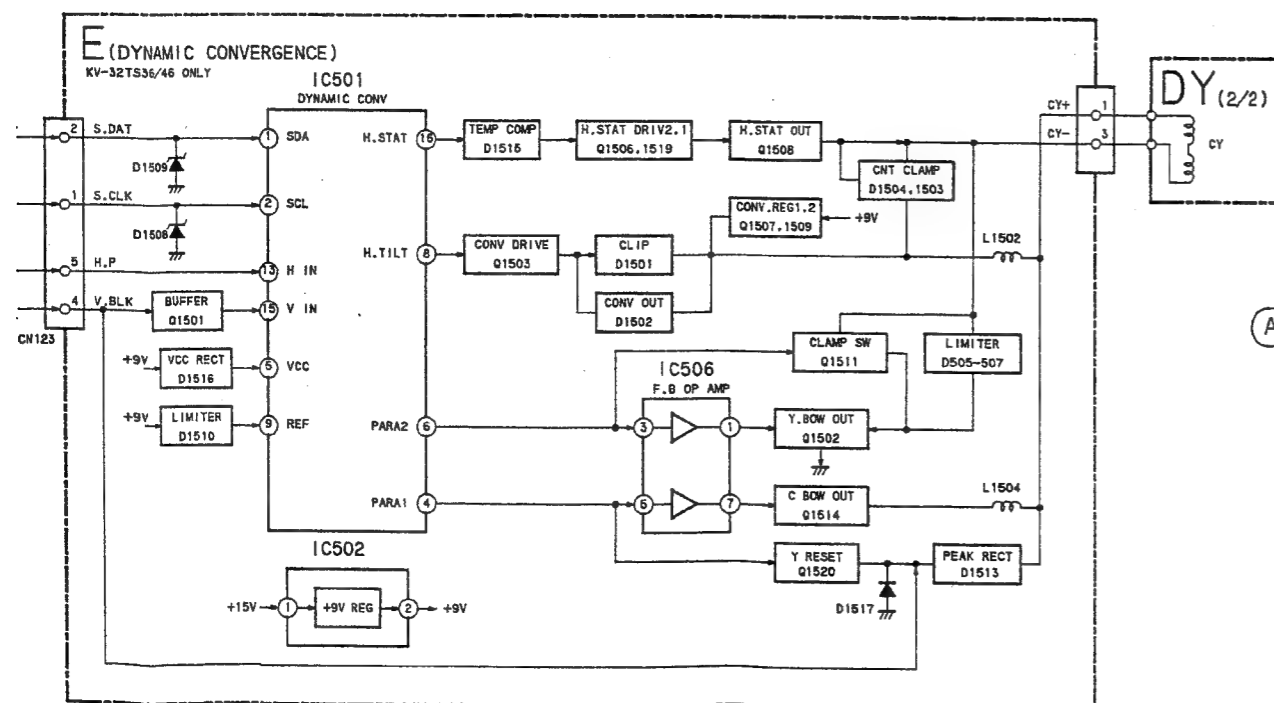
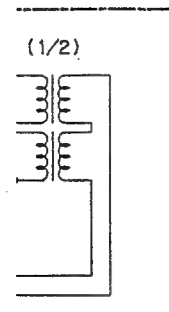


Diagram illustrating the wiring connections for the TV set, showing various components and their pin configurations.

**FOR CHECK**

| 1     | 2      | 3   | 4  | 5    | 6     | 7     | 8 | 9     | 10    | 11    |
|-------|--------|-----|----|------|-------|-------|---|-------|-------|-------|
| CHKCA | CC H/B | ABL | +B | N.C. | R OUT | B OUT | E | B INT | B DAT | B CLK |

CH104  
11P  
:BT08-S

**Speakers**

L OUT  
R OUT

CH103  
4P  
WHT-L  
:S-MICRO

**Power and Control Connections**

135V 1  
12V 2  
SET SV 3  
STBY 9V 4  
9V 5  
L 6  
R 7  
AUBIO E 8  
E 10  
E 11

CH117  
11P  
:BT08-P

135V 1  
12V 2  
SET 5V 3  
STBY 9V 4  
9V 5  
L 6  
R 7  
AUBIO E 8  
E 10  
E 11

CH151  
11P  
:BT08-S

**MTS and Video Connections**

MTS SAP 1  
MTS MONO 2  
AFT 3  
DET OUT 4  
AGC MUTE 5  
BAT 6  
C TV L 7  
E 8  
E 9  
S BAT 10  
S CLK 11  
DET OUT 12  
MUTE 13  
P TV R 14  
P DET OUT 15  
P TV L 16  
LAT 17  
CLK 18  
ST LEQ 19  
C LAT 20  
AFT SW 21  
C A MUTE 22  
E 23  
E 24  
STBY 9V 25  
C ANT SW 26  
135V 27  
135V 28  
9V 29  
12V 30  
E 31  
E 32

CH152  
32P  
:BT08-P

1 MTS SAP  
2 MTS MONO  
3 AFT  
4 DET OUT  
5 AGC MUTE  
6 BAT  
7 C TV L  
8 E  
9 E  
10 S BAT  
11 S CLK  
12 C DET OUT  
13 MUTE  
14 P TV R  
15 P DET OUT  
16 P TV L  
17 LAT  
18 CLK  
19 ST LEQ  
20 C LAT  
21 AFT SW  
22 C A MUTE  
23 E  
24 E  
25 STBY 9V  
26 C ANT SW  
27 135V  
28 135V  
29 9V  
30 12V  
31 E  
32 E

CH149  
4P  
WHT-L  
:S-MICRO

TO ANT SW

1 ANT SW1  
2 E  
3 ANT SW2  
4 9V

KV-32TS44 only

**Front Panel Connections**

CH154  
5P  
WHT-L  
:S-MICRO

1 FRONT L  
2 FRONT R  
3 E  
4 FRONT V  
5 E

CH155  
8P  
RED-L  
:S-MICRO

1 STBY 5V  
2 SIRCS  
3 KEY 0  
4 POWER  
5 TIMER LED  
6 STEREO LED  
7 9V  
8

CH141  
5P  
WHT-L  
:S-MICRO

1 FRONT L  
2 FRONT R  
3 E  
4 FRONT V  
5 E

**Other Connections**

CH147  
32P  
:BT08-S

CH144  
18P  
:BT08-S

1 C OUT  
2 E  
3 Y OUT  
4 E  
5 C IN  
6 E  
7 Y IN  
8 E  
9 Y5  
10 C V PULSE  
11 H PULSE  
12 V PULSE  
13 SV  
14 E  
15 SUB V  
16 9V  
17 S DAT  
18 S CLK

CH150  
18P  
:BT08-P

KV-27TS32/27TS36  
/32TS36/32TS46  
only

1 C OUT  
2 E  
3 Y OUT  
4 E  
5 C IN  
6 E  
7 Y IN  
8 E  
9 Y5  
10 C V PULSE  
11 H PULSE  
12 V PULSE  
13 SV  
14 E  
15 SUB V  
16 9V  
17 S DAT  
18 S CLK

CH144  
5P  
WHT-L  
:S-MICRO

1 C LAT  
2 AFT SW  
3 C A MUTE  
4 STBY 5V  
5 ANT SW 1  
6 E

**Diagram Labels**

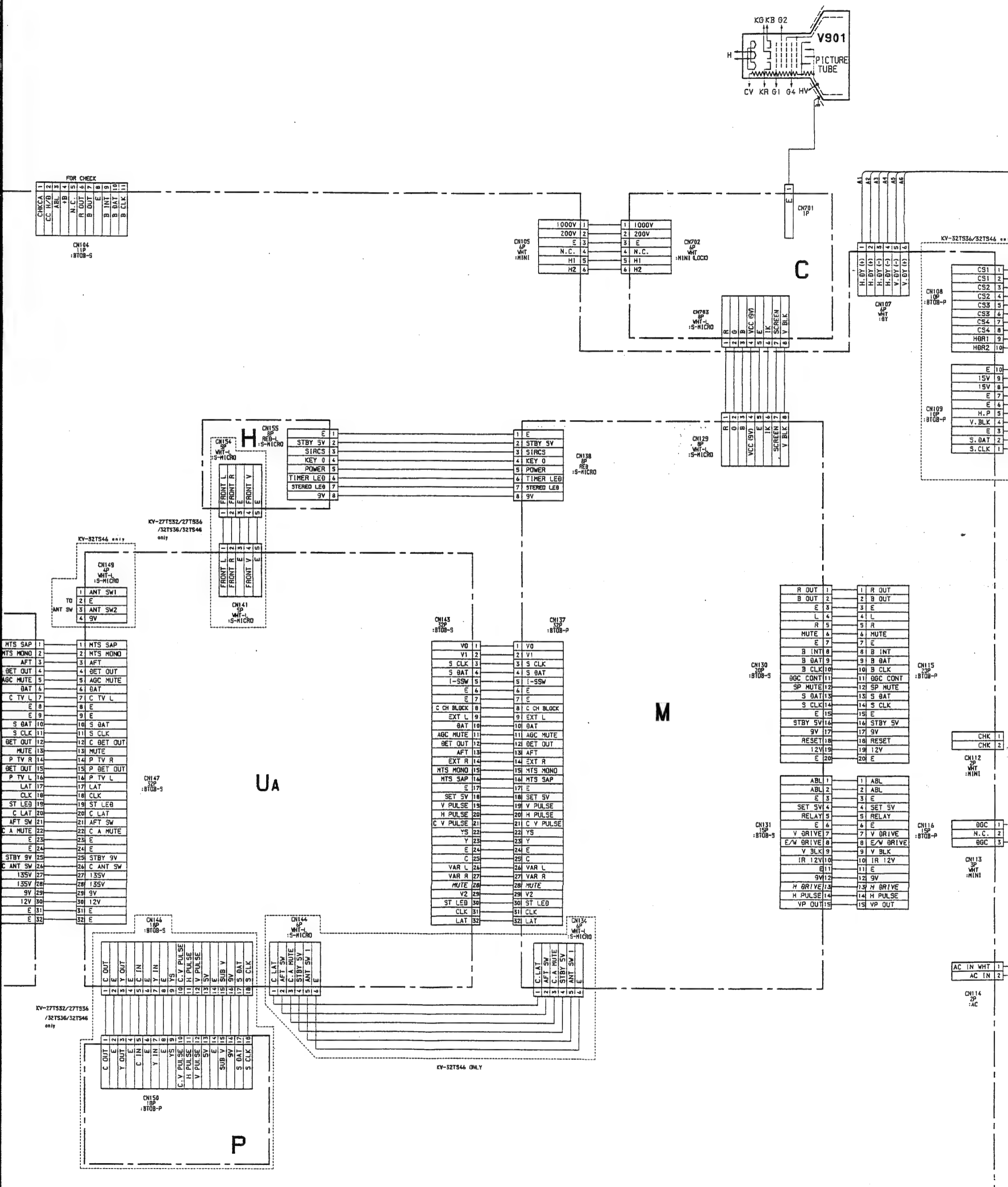
D

A

UA

P

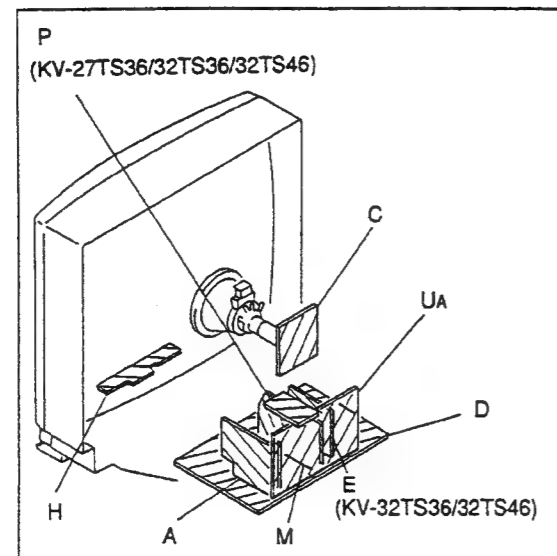
Page numbers: 57, 58







### 6-3. CIRCUIT BOARDS LOCATION



### 6-4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

#### Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.
- $\text{pF}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytic and tantalums.
- All electrolytics are in 50V unless otherwise specified.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm  
Rating electrical power 1/4W

- Chips resistors are 1/10W.
- All resistors are in ohms.
- $\text{k}\Omega=1000\Omega$ ,  $\text{M}\Omega=1000\text{K}\Omega$
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-ground. (cool)
- : earth-chassis. (hot)
- The components identified by in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
- Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved. (Refer to R511 and R524 on page 41, 42)
- When replacing the part in below table be sure to perform the related adjustment.

| Part replaced (  )   | Adjustment (  )                        |
|--|--|
| PM501, R511, R632, R645, R650, R338                                | D BOARD<br>M BOARD<br>HOLD-DOWN (R511) |
| IC601, PM501, D504, C598, R509, R524, R632, R635, R645, T501, R338 | D BOARD<br>M BOARD<br>HOLD-DOWN (R524) |

- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10 M $\Omega$  digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerance.
- Circled numbers are waveform references.

- : B+ line.
- : B- line.
- : signal path.

#### Reference Information

|           |         |                          |
|-----------|---------|--------------------------|
| RESISTOR  | : RN    | METAL FILM               |
|           | : RC    | SOLID                    |
|           | : FPRD  | NONFLAMMABLE CARBON      |
|           | : FUSE  | NONFLAMMABLE FUSIBLE     |
|           | : RW    | NONFLAMMABLE WIREWOUND   |
|           | : RS    | NONFLAMMABLE METAL OXIDE |
|           | : RB    | NONFLAMMABLE CEMENT      |
|           | : *     | ADJUSTMENT RESISTOR      |
| COIL      | : LF-8L | MICRO INDUCTOR           |
| CAPACITOR | : TA    | TANTALUM                 |
|           | : PS    | STYROL                   |
|           | : PP    | POLYPROPYLENE            |
|           | : PT    | MYLAR                    |
|           | : MPS   | METALIZED POLYESTER      |
|           | : MPP   | METALIZED POLYPROPYLENE  |
|           | : ALB   | BIPOLAR                  |
|           | : ALT   | HIGH TEMPERATURE         |
|           | : ALR   | HIGH RIPPLE              |

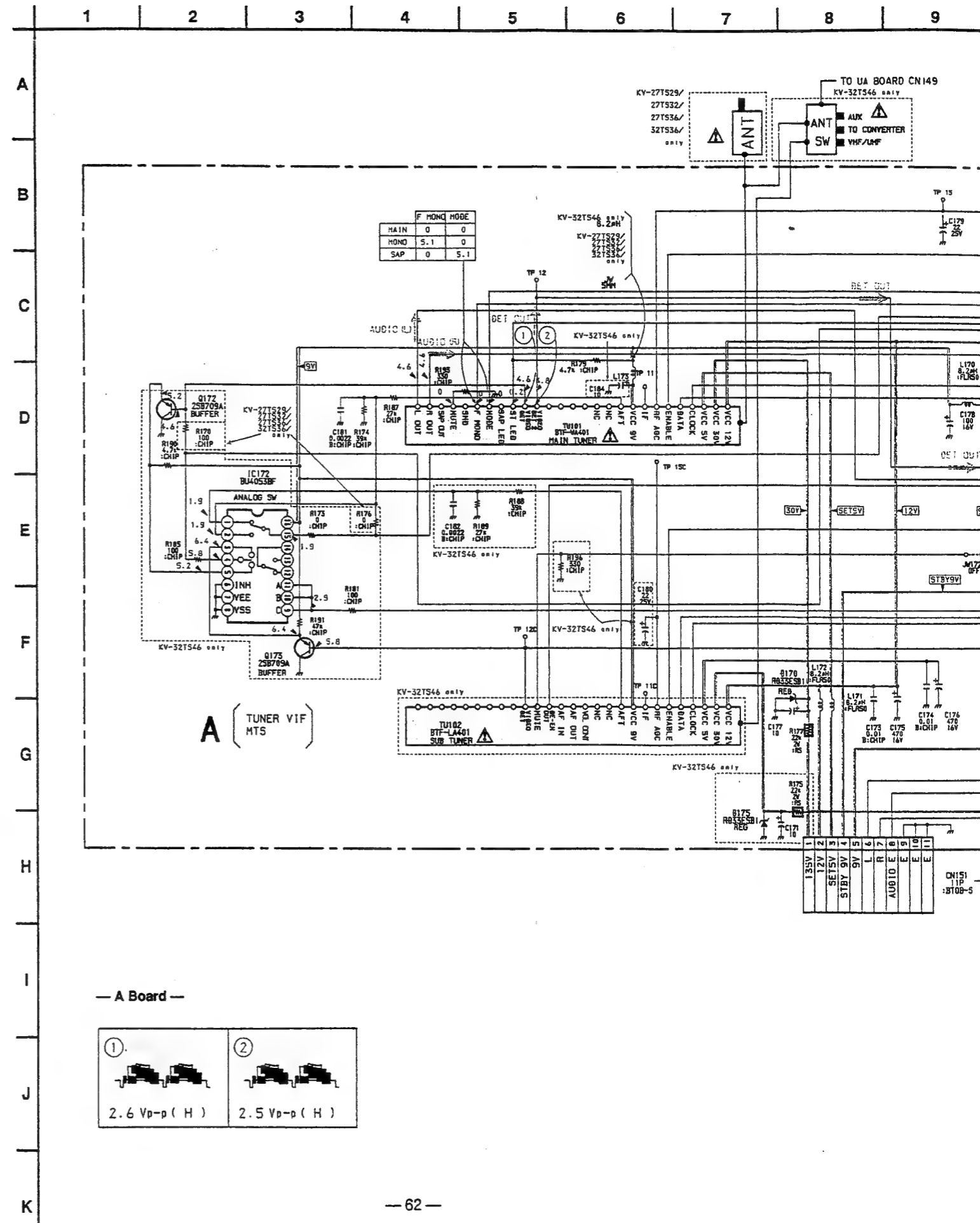
Note: The symbol display is on the component side.

The components identified by shading and mark are critical for safety. Replace only with part number specified.

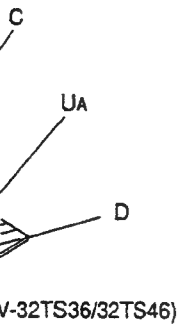
The symbol indicate fast operating fuse. Replace only with fuse of same rating as marked.

Note: Les composants identifiés par un trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Le symbole indique une fusible à action rapide. Doit être remplacée par une fusible de même valeur, comme marqué.



ATION



DS AND

ise noted.  
ed except for electrolytic  
erwise specified.  
not have one for rating

ent for repair.  
ave characteristic curve  
this manual have been  
set in order to satisfy  
lace only with the value

ied by  $\square$ , make the  
results do not meet the  
ent identified by  $\square$  and  
ed value is achieved.  
(42)  
e be sure to perform the

| Part replaced ( $\square$ )   | Adjustment ( $\square$ )                  |
|---|---|
| PM501, R511, R632, R645,<br>R650<br>R338                                  | D BOARD<br>M BOARD<br>HOLD-DOWN<br>(R511) |
| IC601, PM501, D504, C598<br>R509, R524, R632, R635,<br>R645, T501<br>R338 | D BOARD<br>M BOARD<br>HOLD-DOWN<br>(R524) |

- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10 M $\Omega$  digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerance.
- Circled numbers are waveform references.
- $\square$  : B+ line.
- $\square$  : B- line.
- $\square$  : signal path.

#### Reference information

|           |            |                          |
|-----------|------------|--------------------------|
| RESISTOR  | : RN       | METAL FILM               |
|           | : RC       | SOLID                    |
|           | : FPRD     | NONFLAMMABLE CARBON      |
|           | : FUSE     | NONFLAMMABLE FUSIBLE     |
|           | : RW       | NONFLAMMABLE WIREWOUND   |
|           | : RS       | NONFLAMMABLE METAL OXIDE |
|           | : RB       | NONFLAMMABLE CEMENT      |
|           | : $\times$ | ADJUSTMENT RESISTOR      |
| COIL      | : LF-8L    | MICRO INDUCTOR           |
| CAPACITOR | : TA       | TANTALUM                 |
|           | : PS       | STYROL                   |
|           | : PP       | POLYPROPYLENE            |
|           | : PT       | MYLAR                    |
|           | : MPS      | METALIZED POLYESTER      |
|           | : MPP      | METALIZED POLYPROPYLENE  |
|           | : ALB      | BIPOLAR                  |
|           | : ALT      | HIGH TEMPERATURE         |
|           | : ALR      | HIGH RIPPLE              |

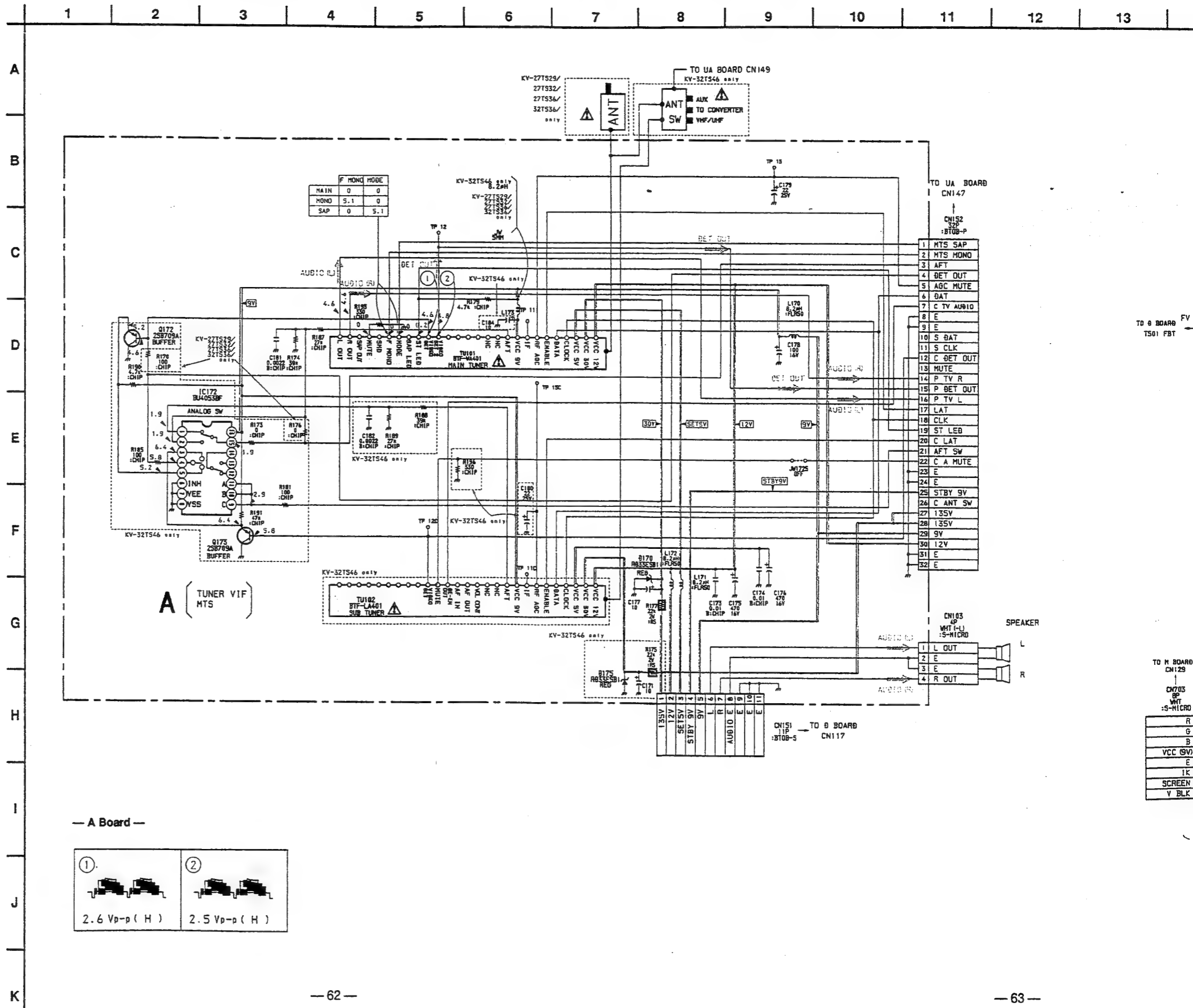
Note: The symbol  $\square$  display is on the component side.

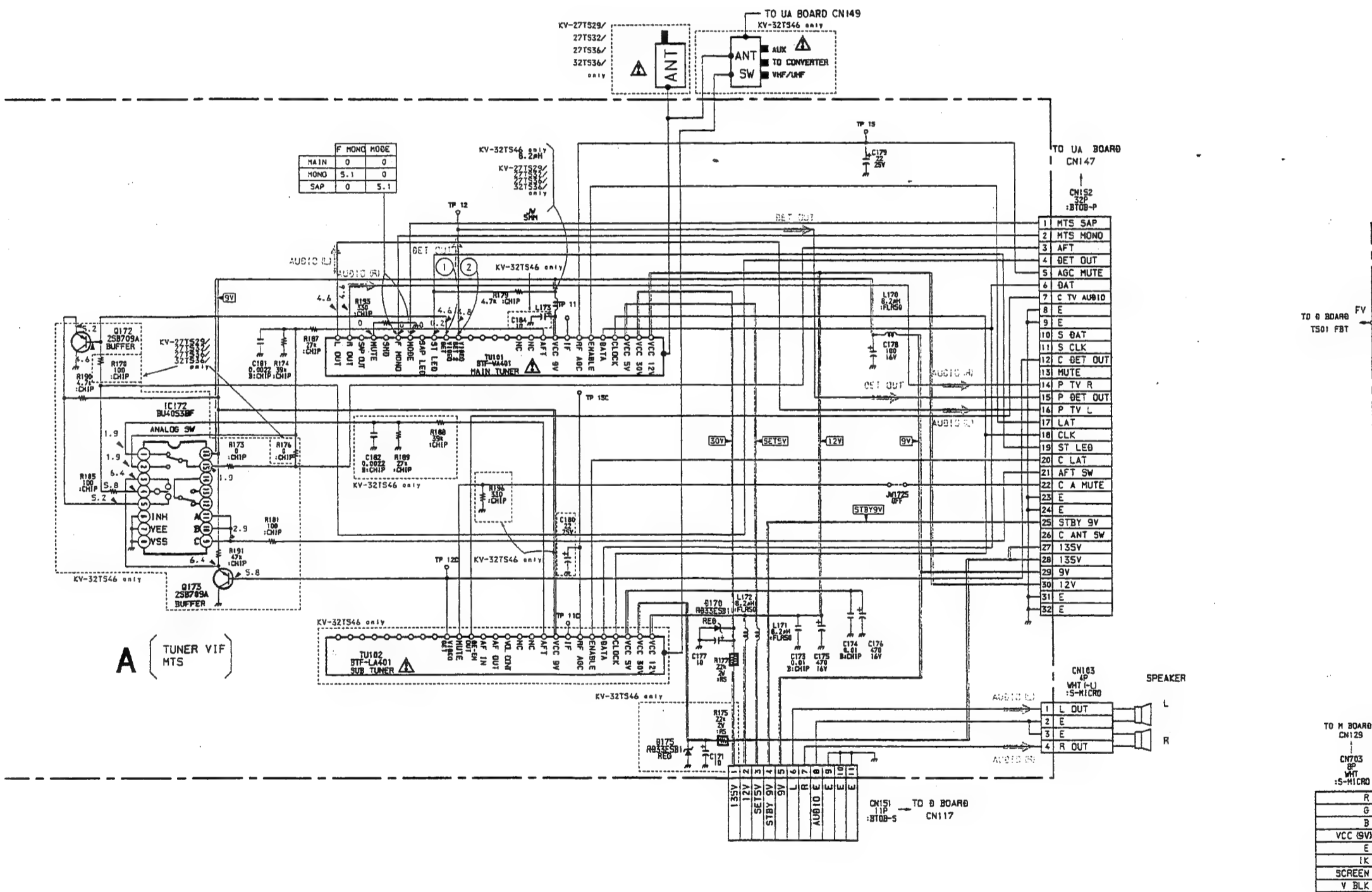
The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

The symbol  $\square$  indicate fast operating fuse. Replace only with fuse of same rating as marked.

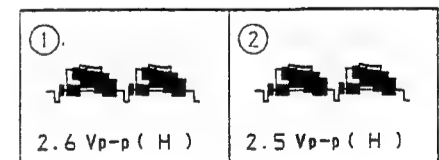
Note: Les composants identifiés par un trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

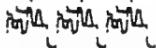
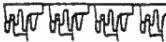
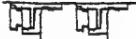
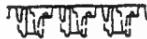
Le symbole  $\square$  indique une fusible a action rapide. Doit être remplacée par une fusible de même valeur, comme maque.





— A Board —



|   |  |   |
|---|--|---|
| <p>①</p>  <p>5.4 V<sub>p-p</sub> (H)</p> | <p>②</p>  <p>5.6 V<sub>p-p</sub> (H)</p> | <p>③</p>  <p>5.6 V<sub>p-p</sub> (H)</p> |
| <p>④</p>  <p>175 V<sub>p-p</sub> (H)</p> | <p>⑤</p>  <p>180 V<sub>p-p</sub> (H)</p> | <p>⑥</p>  <p>185 V<sub>p-p</sub> (H)</p> |
| <p>⑦</p>  <p>25 V<sub>p-p</sub> (H)</p>  |  |   |

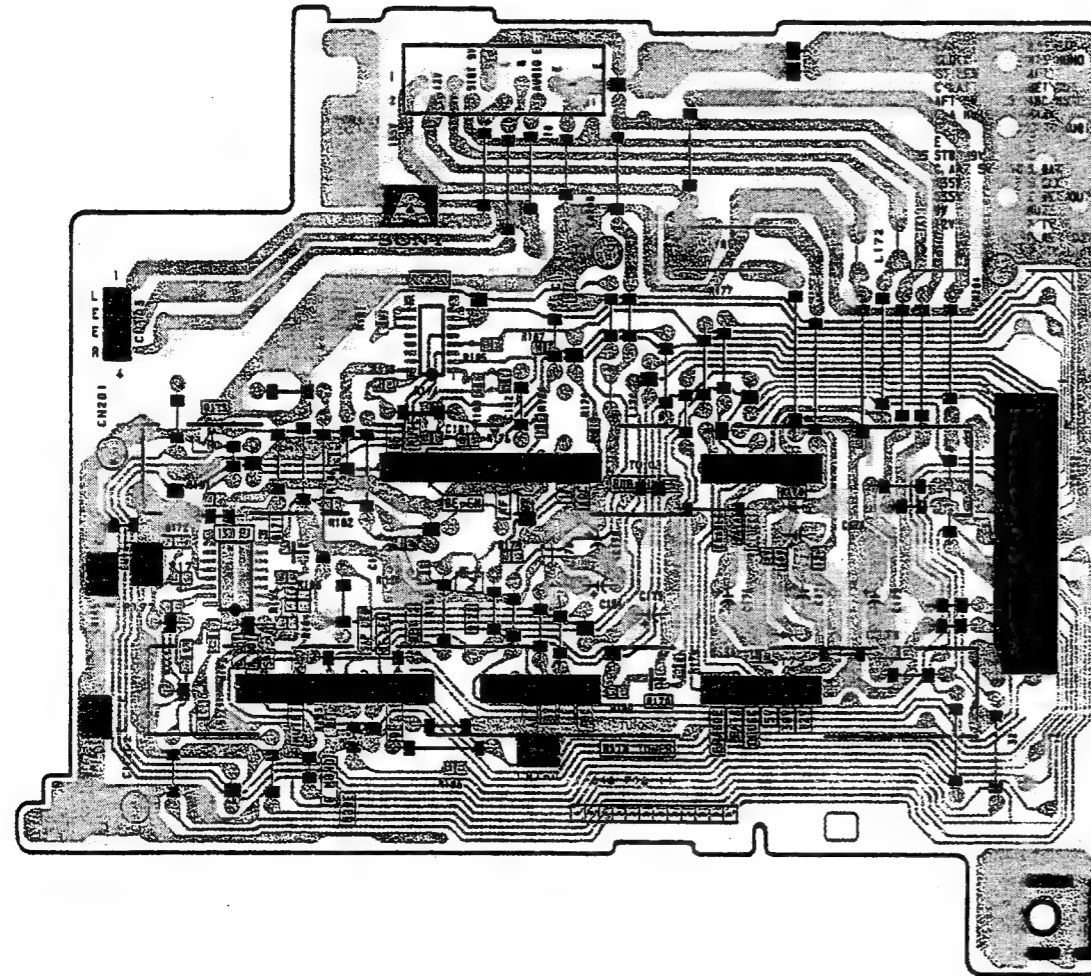


KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y118 RM-Y118  
SA-W200

KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y118 RM-Y118  
SA-W200

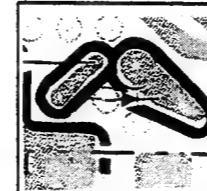
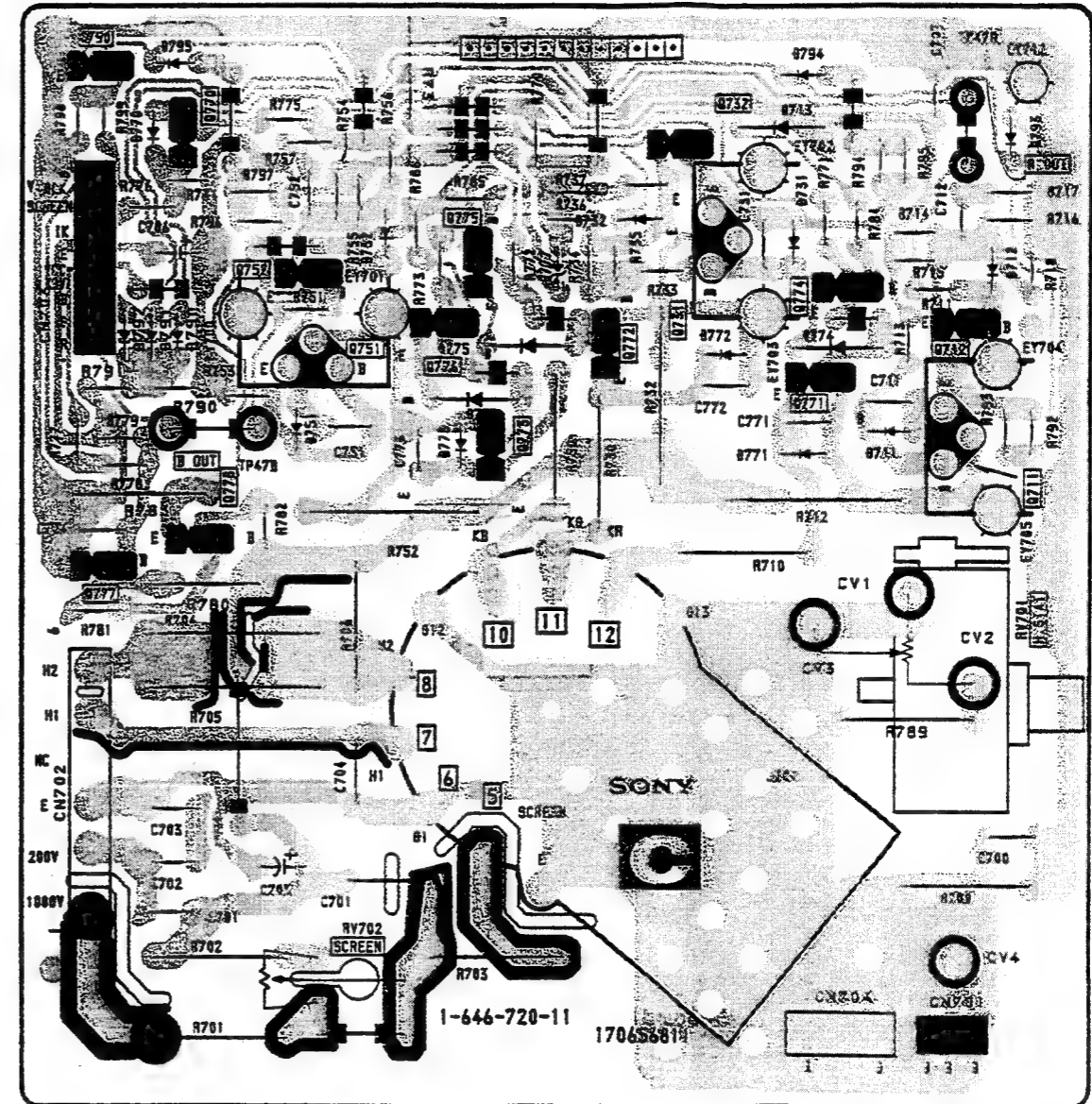
**A** [TUNER, VIF, MTS]

— A Board —



**C** [R.G.B. OUT]

— C Board —



**NOTE:**

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

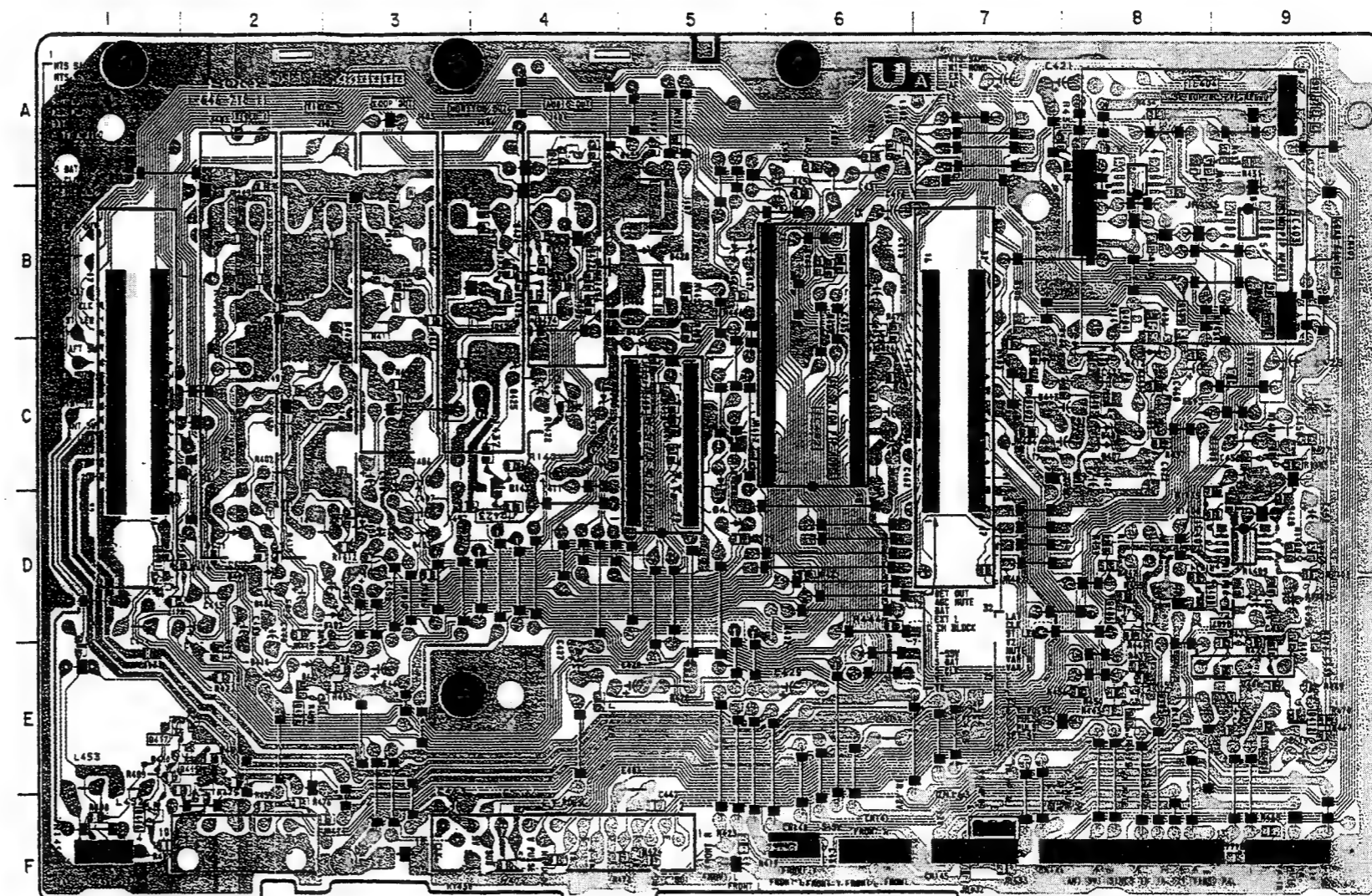
|                         |                         |
|-------------------------|-------------------------|
| KV-27TS29/27TS32/27TS36 | KV-27TS29/27TS32/27TS36 |
| RM-Y116 RM-Y117 RM-Y118 | RM-Y116 RM-Y117 RM-Y118 |
| KV-32TS36/32TS46        | KV-32TS36/32TS46        |
| RM-Y118 RM-Y119 SA-W200 | RM-Y118 RM-Y119 SA-W200 |

**UA** [AV SW, AV INPUT, AV OUTPUT]

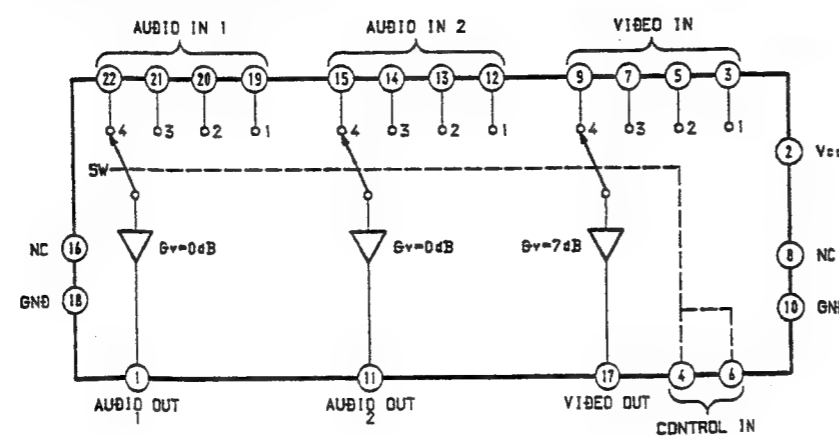
— UA Board —

| IC         |     |
|------------|-----|
| IC401      | C-5 |
| IC402      | C-6 |
| IC403      | B-9 |
| IC404      | A-8 |
| TRANSISTOR |     |
| Q401       | D-1 |
| Q405       | E-8 |
| Q406       | D-8 |
| Q410       | A-4 |
| Q414       | B-6 |
| Q415       | E-2 |
| Q416       | F-1 |
| Q417       | E-1 |
| Q418       | E-1 |
| DIODE      |     |
| D401       | D-2 |
| D402       | D-3 |
| D405       | C-4 |
| D408       | D-2 |
| D436       | B-5 |
| D437       | B-5 |

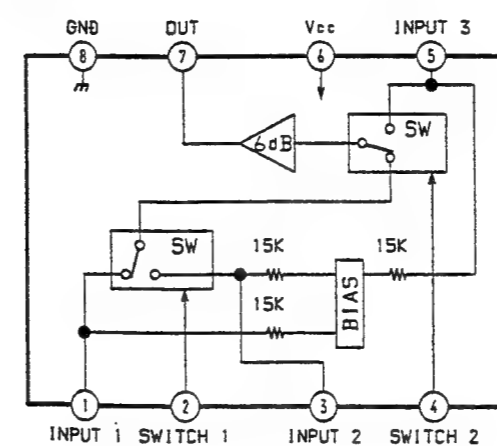
— UA Board —



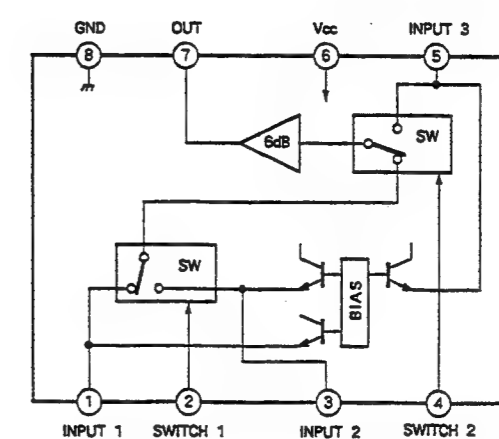
UA Board IC401 M5470AP



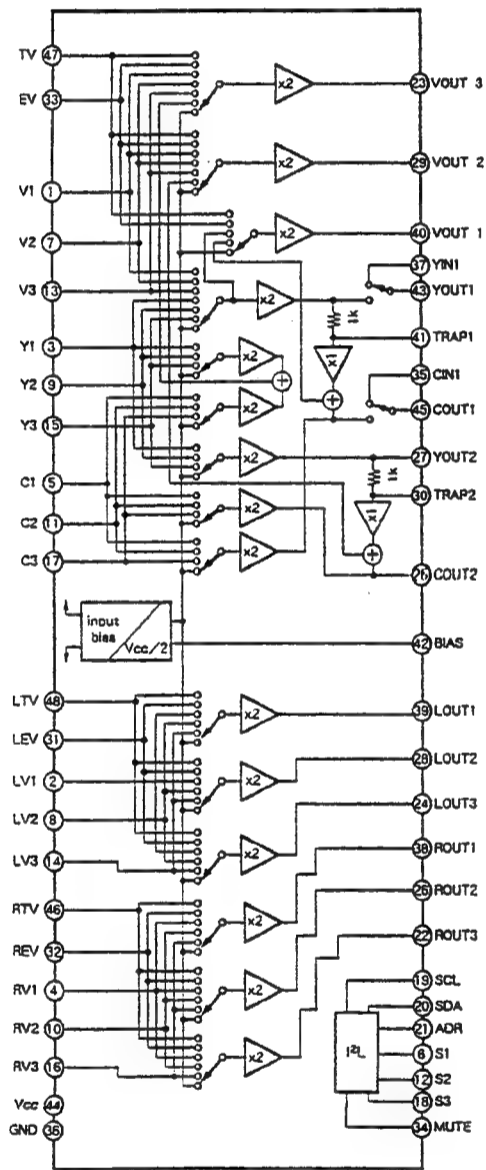
UA Board IC403 MM1114XFF



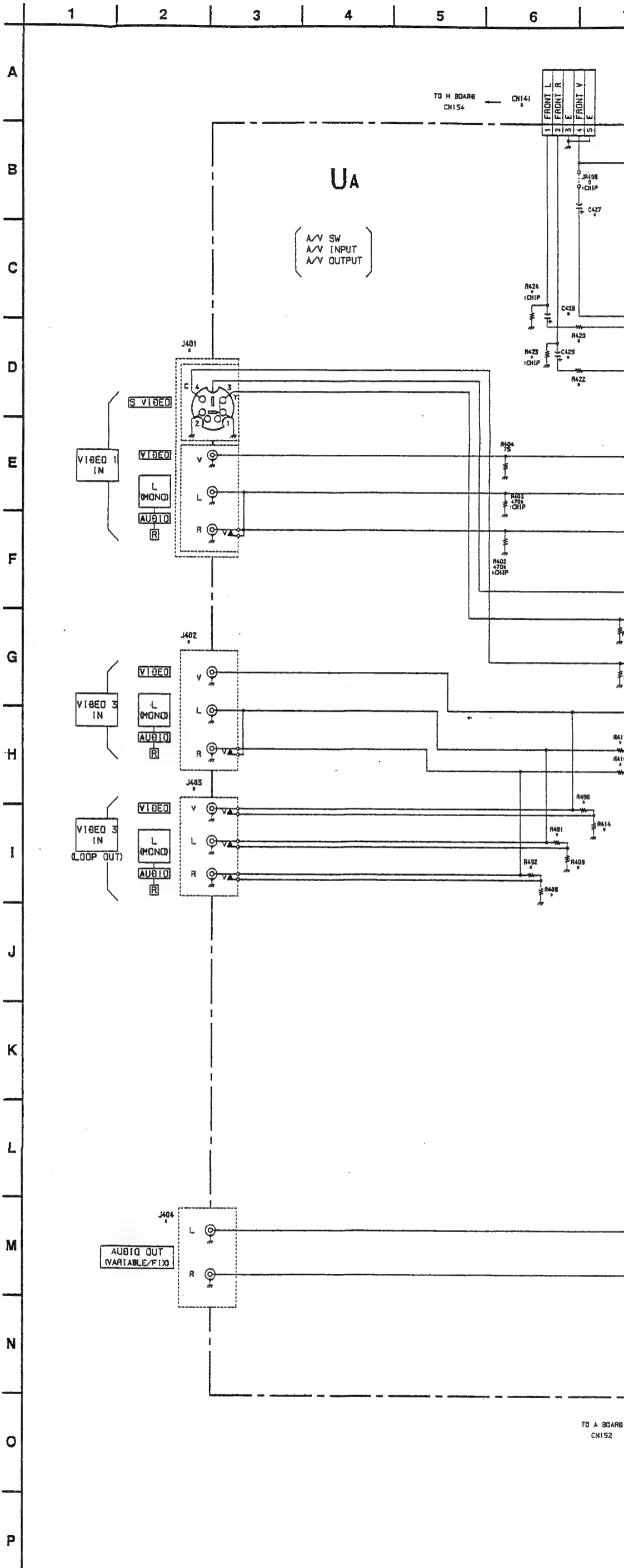
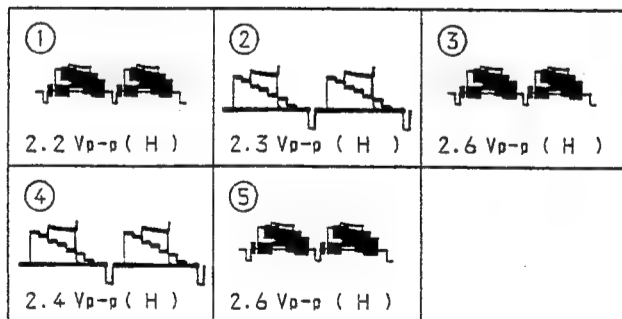
UA Board IC404 MM1118XFF



UA Board IC402 CXA1545AS

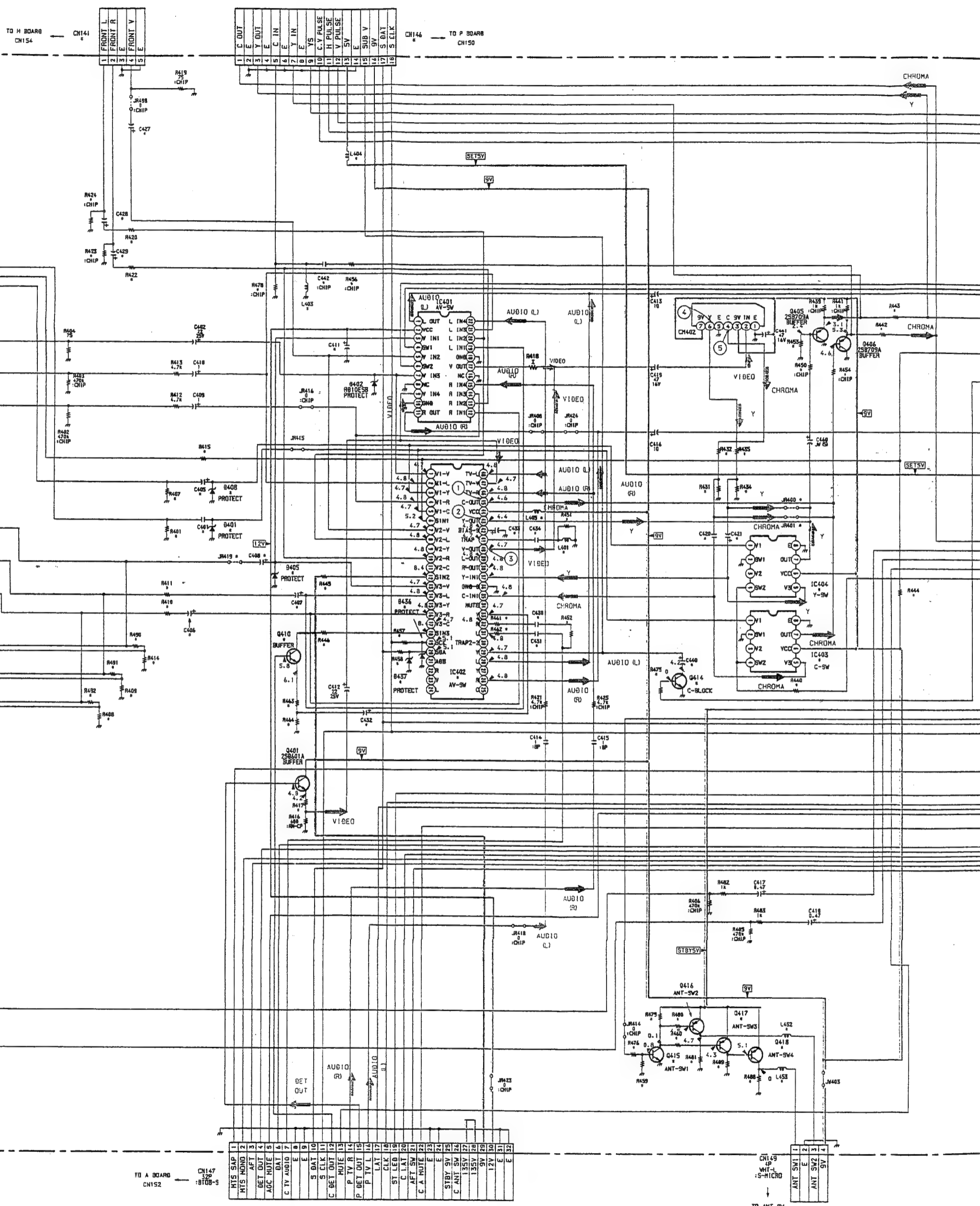


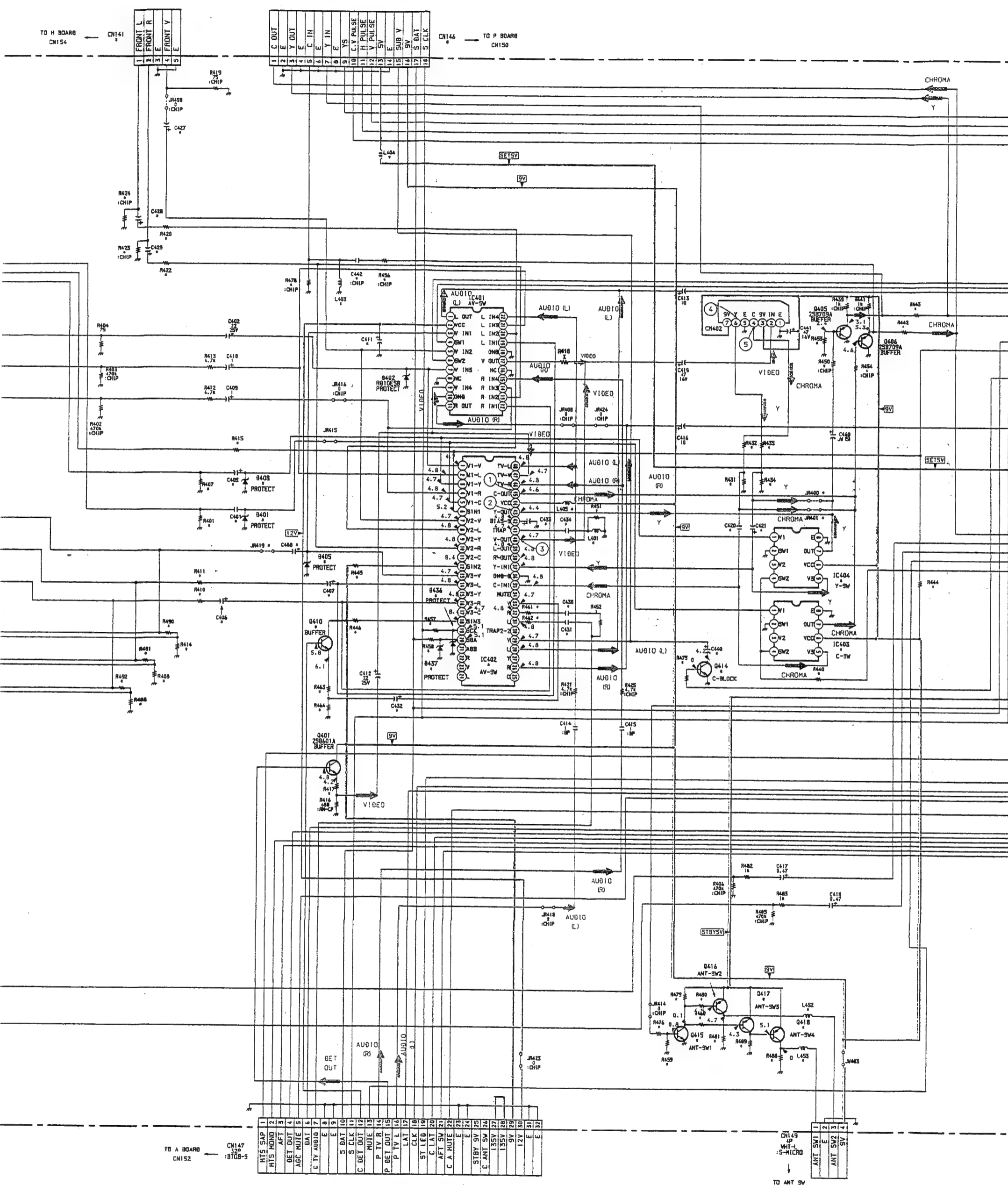
— UA Board —

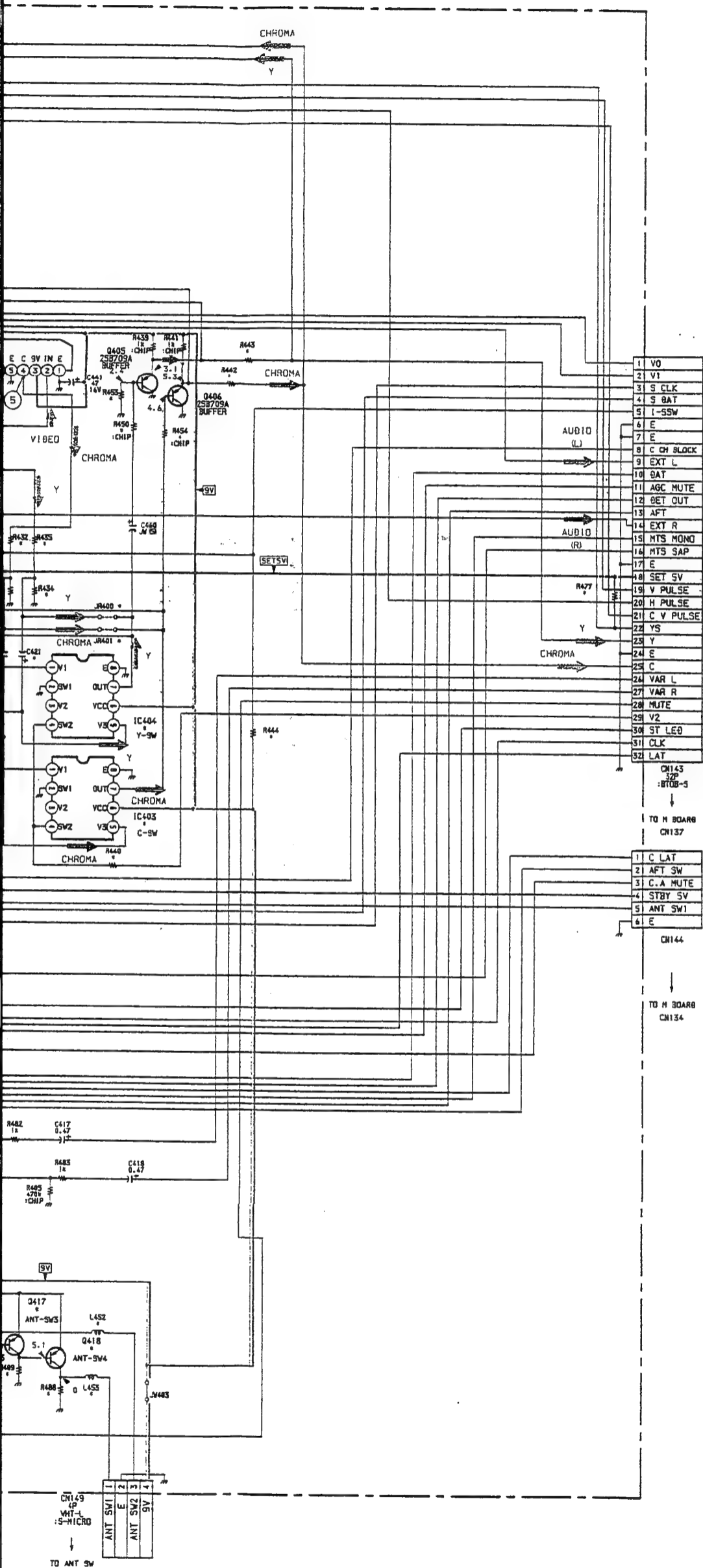


UA

SW INPUT OUTPUT



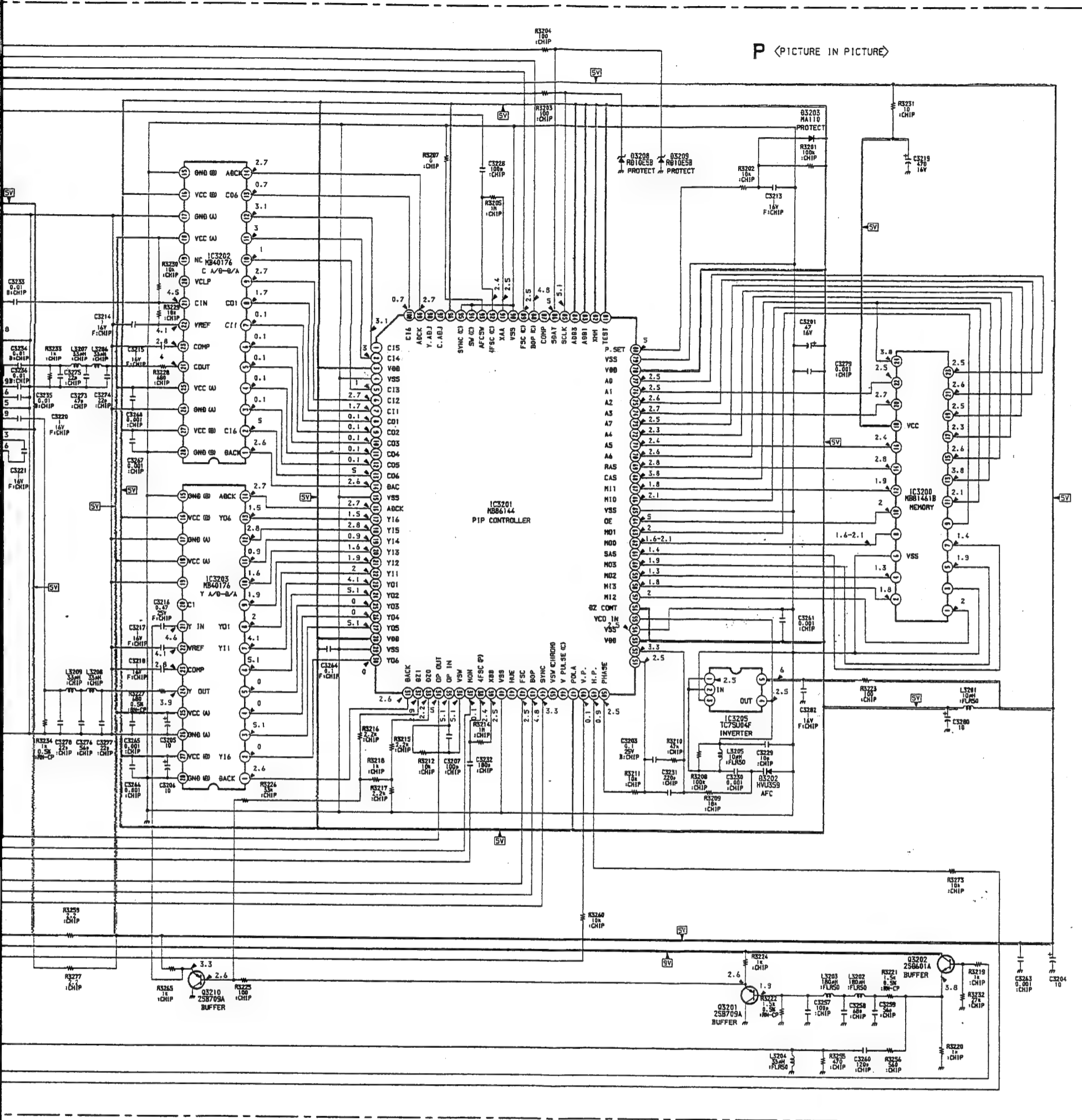




— UA Board —

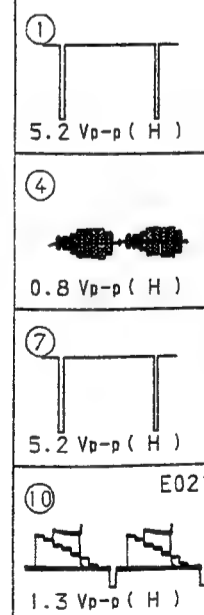
|       | KV-32TS46          | KV-27TS36<br>KV-32TS36 | KV-27TS32          | KV-27TS29      |
|-------|--------------------|------------------------|--------------------|----------------|
| C401  | 0.01 F: CHIP       | 0.01 F: CHIP           | 0.01 F: CHIP       | -              |
| C405  | 22 25V             | 22 25V                 | 22 25V             | -              |
| C406  | 1                  | 1                      | 1                  | -              |
| C407  | 1                  | 1                      | 1                  | -              |
| C408  | 22 25V             | 22 25V                 | 22 25V             | -              |
| C411  | -                  | -                      | 100 25V            | 100 25V        |
| C420  | 0.01 F: CHIP       | 0.01 F: CHIP           | 0.01 F: CHIP       | -              |
| C421  | 22 25V             | 22 25V                 | 0.47               | -              |
| C427  | JW (5)             | JW (5)                 | JW (5)             | -              |
| C428  | JW (5)             | JW (5)                 | JW (5)             | -              |
| C429  | JW (5)             | JW (5)                 | JW (5)             | -              |
| C430  | 1                  | -                      | -                  | -              |
| C431  | 1                  | -                      | -                  | -              |
| C432  | 22 25V             | -                      | -                  | -              |
| C433  | 33 25V             | 33 25V                 | -                  | -              |
| C434  | 100P : CHIP        | 100P : CHIP            | -                  | -              |
| C440  | 10                 | 10                     | -                  | -              |
| C442  | 100P : CHIP        | 100P : CHIP            | -                  | -              |
| Q401  | 5P WHT-L : S-MICRO | 5P WHT-L : S-MICRO     | 5P WHT-L : S-MICRO | -              |
| Q404  | 6P WHT-L : S-MICRO | -                      | -                  | -              |
| Q406  | 18P : BT08-S       | 18P : BT08-S           | -                  | -              |
| Q409  | 4P WHT-L : S-MICRO | -                      | -                  | -              |
| D401  | RD10ESB            | RD10ESB                | RD10ESB            | -              |
| D405  | RD10ESB            | RD10ESB                | RD10ESB            | -              |
| D408  | RD10ESB            | RD10ESB                | RD10ESB            | -              |
| D436  | RD10ESB            | RD10ESB                | -                  | -              |
| D437  | RD10ESB            | RD10ESB                | -                  | -              |
| IC401 | -                  | -                      | MS2470AP           | MS2470AP       |
| IC402 | CA1545AS           | CA1545AS               | -                  | -              |
| IC403 | -                  | -                      | MM1114XFF          | -              |
| IC404 | -                  | -                      | MM1118XFF          | -              |
| J401  | S TERMINAL BLOCK   | S TERMINAL BLOCK       | S TERMINAL BLOCK   | PIN JACK BLOCK |
| J402  | PIN JACK BLOCK     | PIN JACK BLOCK         | PIN JACK BLOCK     | -              |
| J403  | -                  | -                      | PIN JACK BLOCK     | -              |
| J400  | -                  | -                      | -                  | 0 : CHIP       |
| J401  | -                  | -                      | -                  | 0 : CHIP       |
| J415  | 0 : CHIP           | 0 : CHIP               | 0 : CHIP           | -              |
| J419  | 0 : CHIP           | 0 : CHIP               | 0 : CHIP           | -              |
| JW403 | 10M                | -                      | -                  | -              |
| L401  | 18uH : FLR50       | 18uH : FLR50           | -                  | -              |
| L403  | 33uH : FLR50       | 33uH : FLR50           | -                  | -              |
| L404  | JW (5)             | JW (5)                 | -                  | -              |
| L405  | JW (5)             | JW (5)                 | -                  | -              |
| L452  | JW (5)             | -                      | -                  | -              |
| L453  | JW (5)             | -                      | -                  | -              |
| Q410  | 2S0601A            | -                      | -                  | -              |
| Q414  | 2S0601A            | 2S0601A                | -                  | -              |
| Q415  | 2S0601A            | -                      | -                  | -              |
| Q416  | 2S8709A            | -                      | -                  | -              |
| Q417  | 2S8709A            | -                      | -                  | -              |
| Q418  | 2S8709A            | -                      | -                  | -              |
| R401  | 75 : CHIP          | 75 : CHIP              | 75 : CHIP          | -              |
| R407  | 75 : CHIP          | 75 : CHIP              | 75 : CHIP          | -              |
| R408  | 470K : CHIP        | 470K : CHIP            | 470K : CHIP        | -              |
| R409  | 470K : CHIP        | 470K : CHIP            | 470K : CHIP        | -              |
| R410  | 4.7K               | 4.7K                   | 4.7K               | -              |
| R411  | 4.7K               | 4.7K                   | 4.7K               | -              |
| R414  | 75 : CHIP          | 75 : CHIP              | 75 : CHIP          | -              |
| R415  | 4.7K : CHIP        | 4.7K : CHIP            | 4.7K : CHIP        | -              |
| R417  | 560 : RN-CP        | 560 : RN-CP            | 470 : RN-CP        | 470 : RN-CP    |
| R418  | -                  | -                      | 100 : CHIP         | 100 : CHIP     |
| R420  | JW (5)             | JW (5)                 | JW (5)             | -              |
| R422  | JW (5)             | JW (5)                 | JW (5)             | -              |
| R431  | 1K : CHIP          | 1K : CHIP              | 680 : CHIP         | 1K : CHIP      |
| R432  | 0 : CHIP           | 0 : CHIP               | 680 : CHIP         | 0 : CHIP       |
| R434  | 1K : CHIP          | 1K : CHIP              | 680 : CHIP         | 1K : CHIP      |
| R435  | 0 : CHIP           | 0 : CHIP               | 680 : CHIP         | 0 : CHIP       |
| R440  | -                  | -                      | 100 : CHIP         | -              |
| R442  | -                  | -                      | 100 : CHIP         | 100 : CHIP     |
| R443  | -                  | -                      | 100 : CHIP         | 100 : CHIP     |
| R444  | 82K : CHIP         | 82K : CHIP             | 82K : CHIP         | -              |
| R445  | 10K : CHIP         | 10K : CHIP             | -                  | -              |
| R446  | 10K : CHIP         | 10K : CHIP             | -                  | -              |
| R450  | 470 : CHIP         | 470 : CHIP             | 100 : CHIP         | 100 : CHIP     |
| R451  | 4.7K : CHIP        | 4.7K : CHIP            | -                  | -              |
| R452  | 100 : CHIP         | -                      | -                  | -              |
| R453  | -                  | -                      | 820 : RN-CP        | 820 : RN-CP    |
| R454  | 0 : CHIP           | 0 : CHIP               | 100 : CHIP         | 100 : CHIP     |
| R456  | 470 : CHIP         | 470 : CHIP             | -                  | -              |
| R457  | 220 : CHIP         | 220 : CHIP             | -                  | -              |
| R458  | 220 : CHIP         | 220 : CHIP             | -                  | -              |
| R459  | 22K : CHIP         | -                      | -                  | -              |
| R460  | 330 : CHIP         | -                      | -                  | -              |
| R461  | 4.7K : CHIP        | -                      | -                  | -              |
| R462  | 4.7K : CHIP        | -                      | -                  | -              |
| R463  | 680 : CHIP         | -                      | -                  | -              |
| R464  | 680 : CHIP         | -                      | -                  | -              |
| R475  | 1K : CHIP          | 1K : CHIP              | -                  | -              |
| R476  | 22K : CHIP         | -                      | -                  | -              |
| R477  | -                  | -                      | 1K : CHIP          | 1K : CHIP      |
| R478  | 470 : CHIP         | 470 : CHIP             | -                  | -              |
| R479  | 22K : CHIP         | -                      | -                  | -              |
| R480  | 22K : CHIP         | -                      | -                  | -              |
| R481  | 22K : CHIP         | -                      | -                  | -              |
| R488  | 22K : CHIP         | -                      | -                  | -              |
| R489  | 22K : CHIP         | -                      | -                  | -              |
| R490  | 0 : CHIP           | 0 : CHIP               | -                  | -              |
| R491  | 0 : CHIP           | 0 : CHIP               | -                  | -              |
| R492  | 0 : CHIP           | 0 : CHIP               | -                  | -              |





B-554439-01-P..

— P Board —

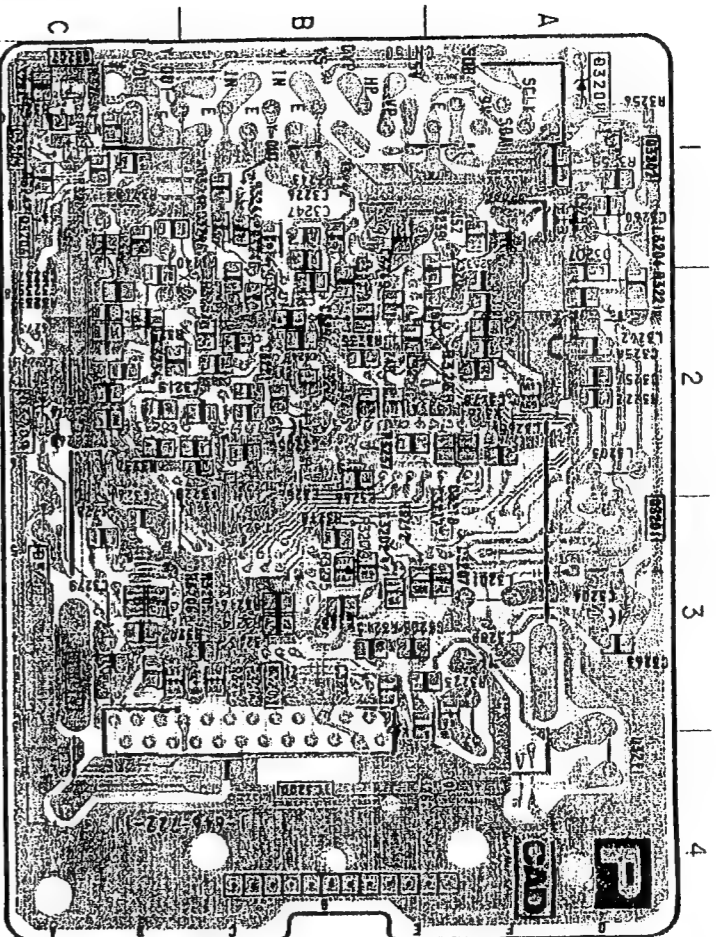




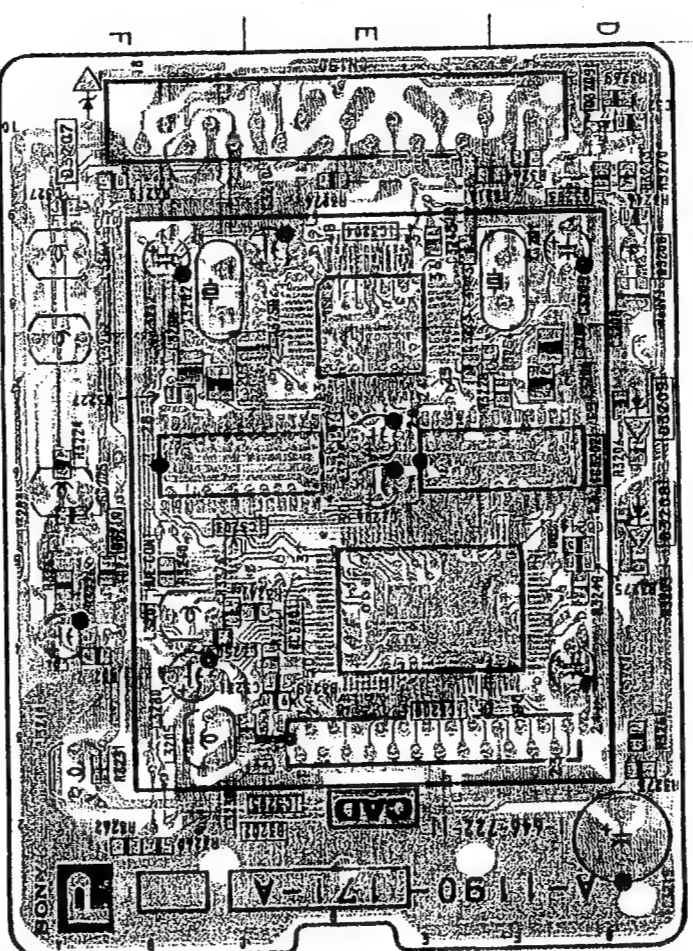
८

[PICTURE IN PICTURE]

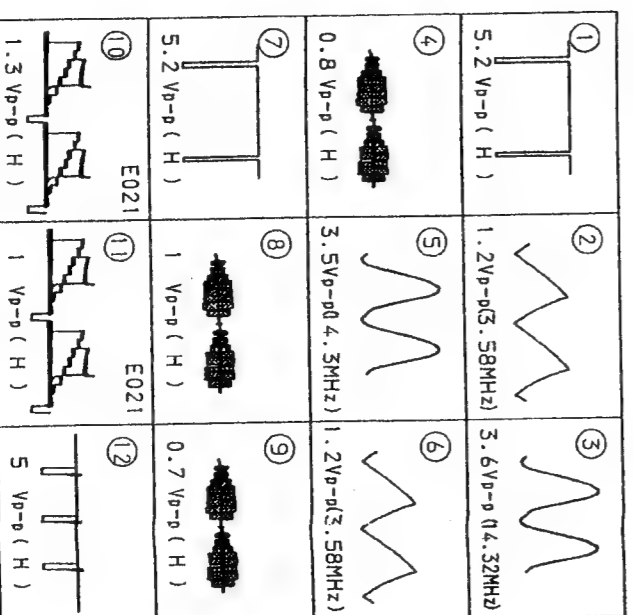
— P Board —



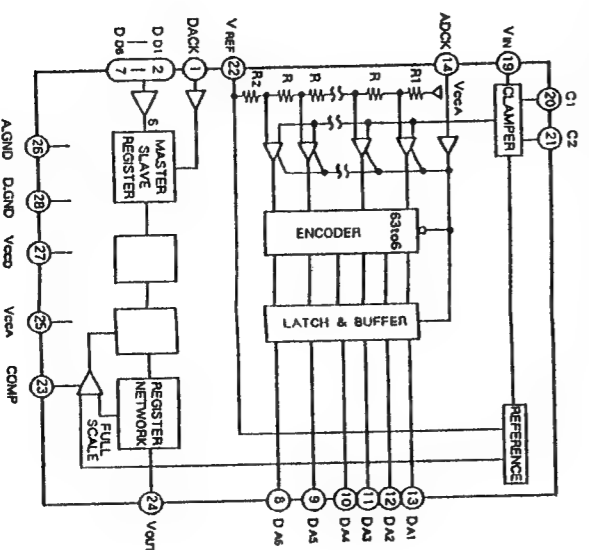
| IC         |       |
|------------|-------|
| IC3200     | B - 4 |
| IC3201     | E - 3 |
| IC3202     | D - 2 |
| IC3203     | F - 2 |
| IC3204     | E - 2 |
| IC3205     | E - 3 |
| TRANSISTOR |       |
| Q3201      | A - 3 |
| Q3202      | A - 1 |
| Q3203      | D - 1 |
| Q3204      | C - 1 |
| Q3206      | C - 1 |
| Q3207      | C - 1 |
| Q3208      | D - 1 |
| Q3209      | D - 1 |
| Q3210      | F - 3 |
| DIODE      |       |
| D3202      | E - 4 |
| D3203      | B - 3 |
| D3208      | C - 3 |
| D3209      | C - 2 |



— P Board —



**P Board IC3202, IC3203 MB40176**

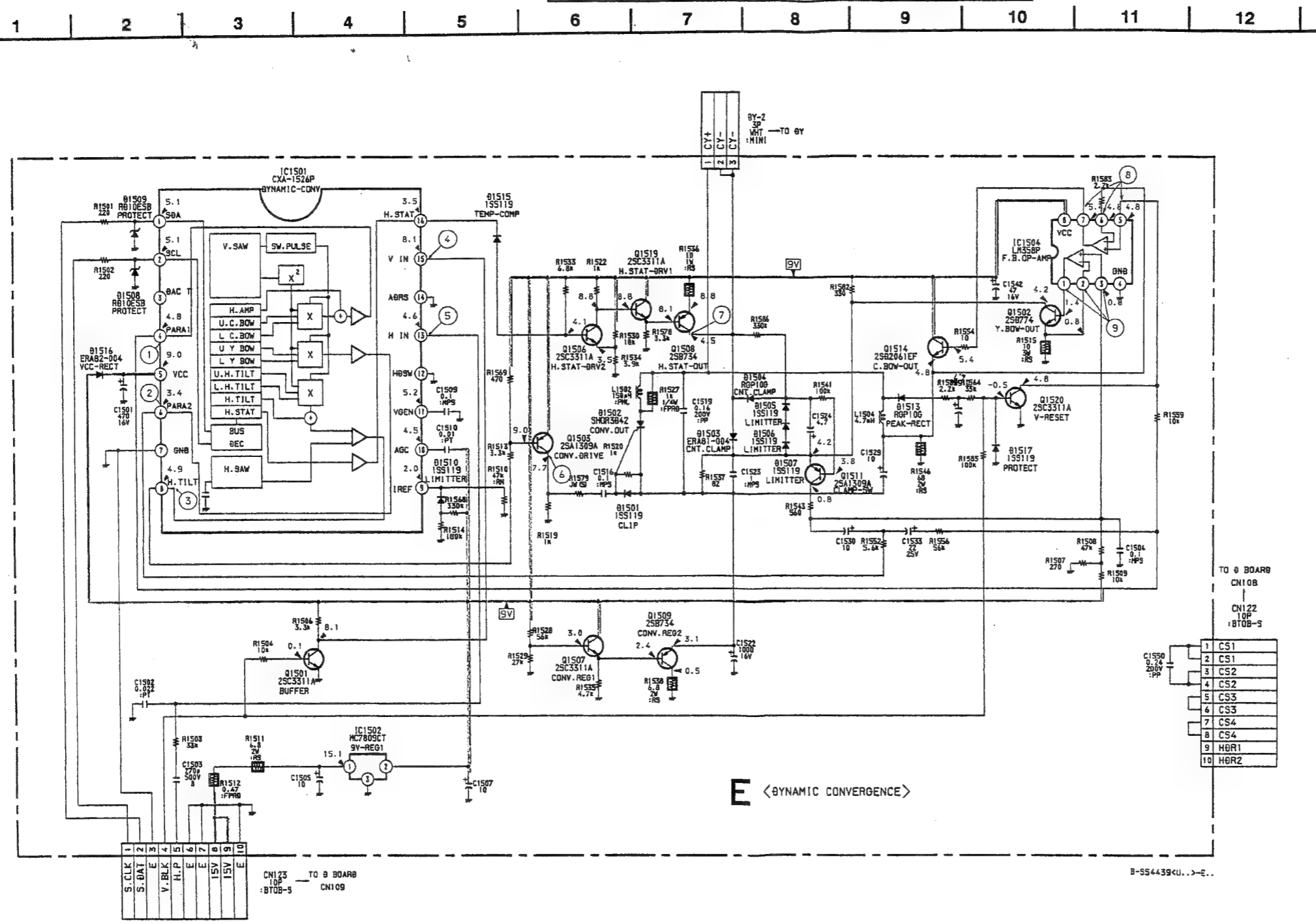
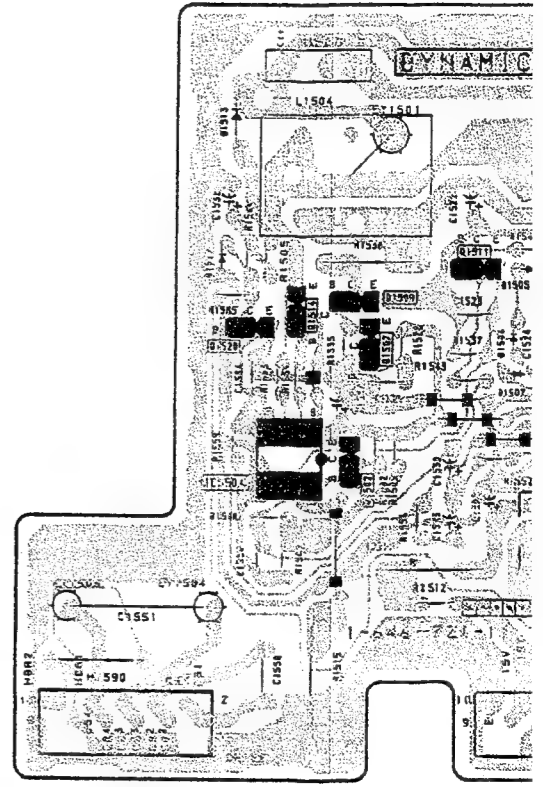


KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y116 RM-Y118 SA-W200

KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y116 RM-Y118 SA-W200

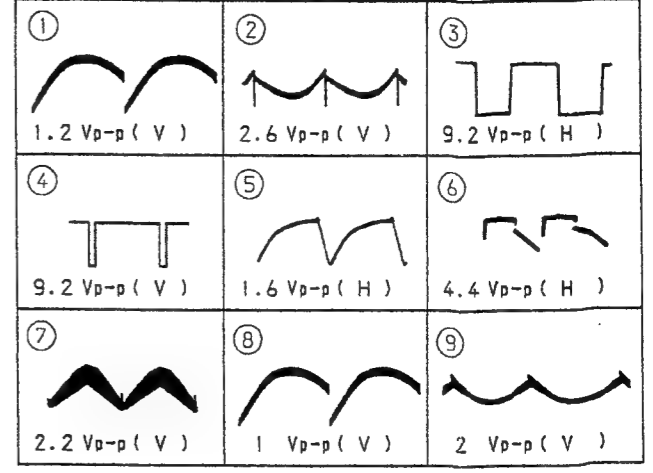
**E** [DYNAMIC CONVERGENCE]

— E Board —



**E** [DYNAMIC CONVERGENCE]

— E Board —



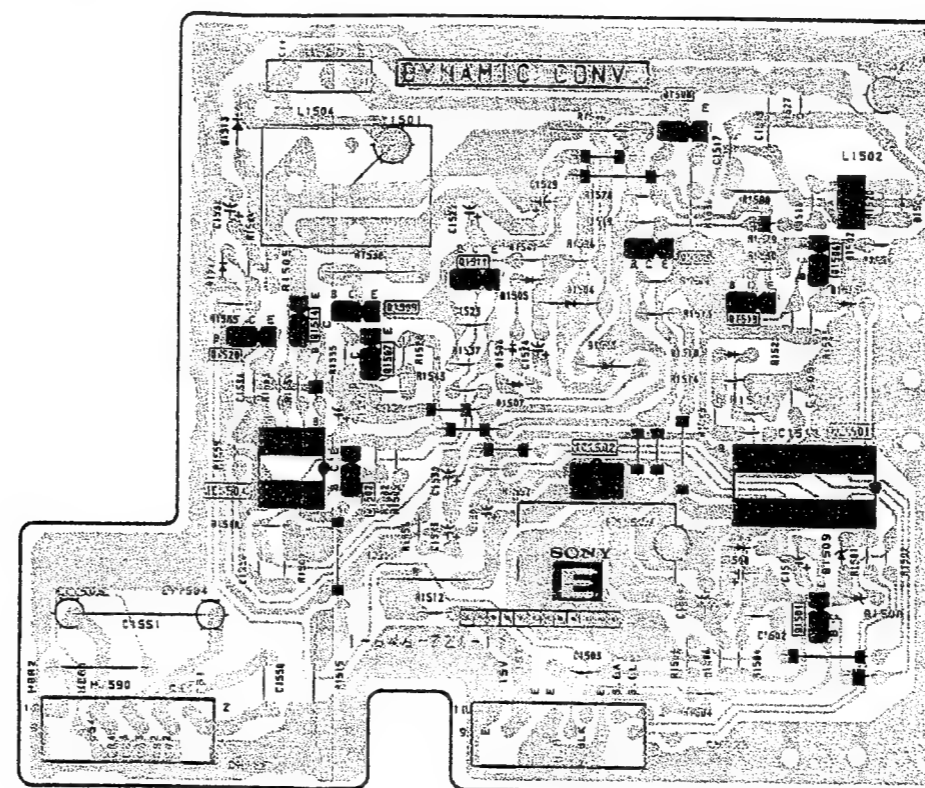
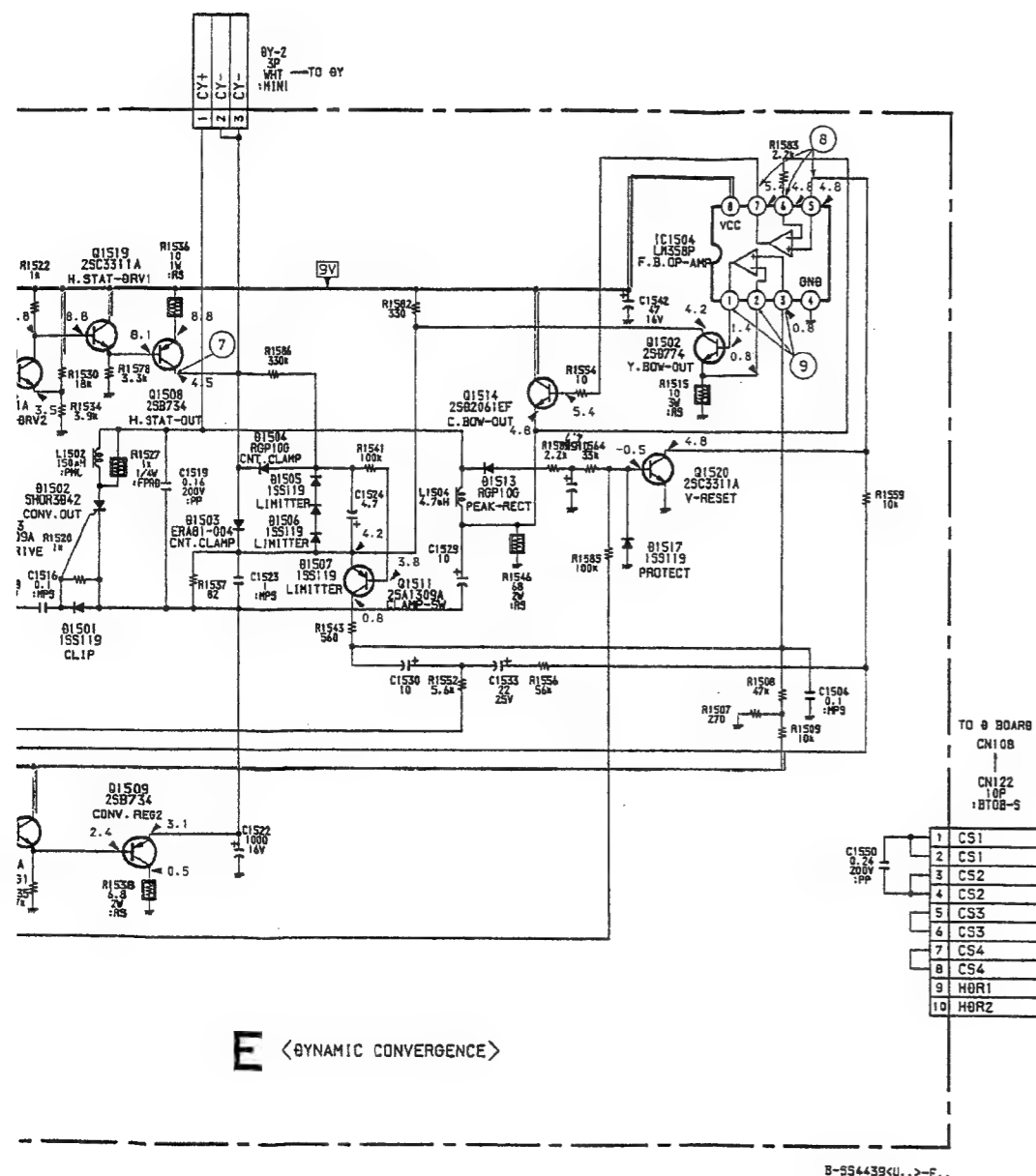
**KV-27TS29/27TS32/27TS36**  
RM-Y116 RM-Y117 RM-Y118

**KV-32TS36/32TS46**  
RM-Y116 RM-Y118  
SA-W200

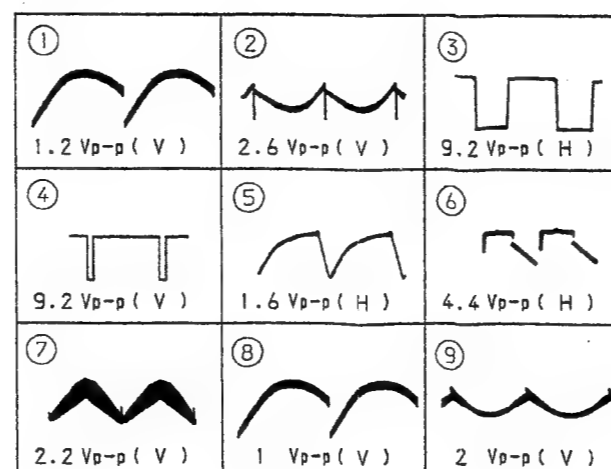
**KV-27TS29/27TS32/27TS36**  
RM-Y118 RM-Y117 RM-Y118

**KV-32TS36/32TS46**  
RM-Y118 RM-Y118  
SA-W200

— E Board —



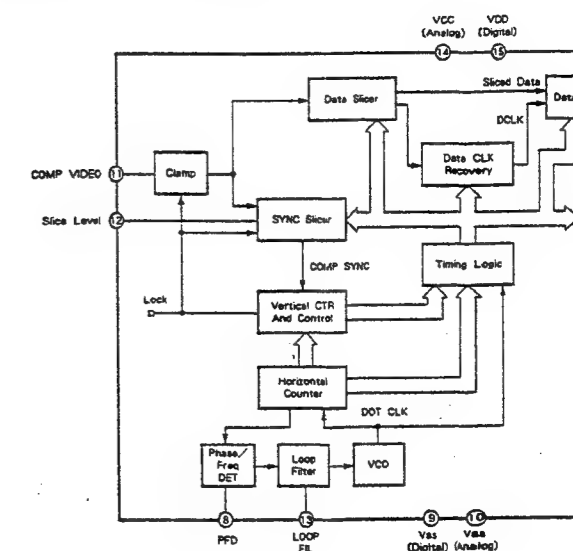
— E Board —



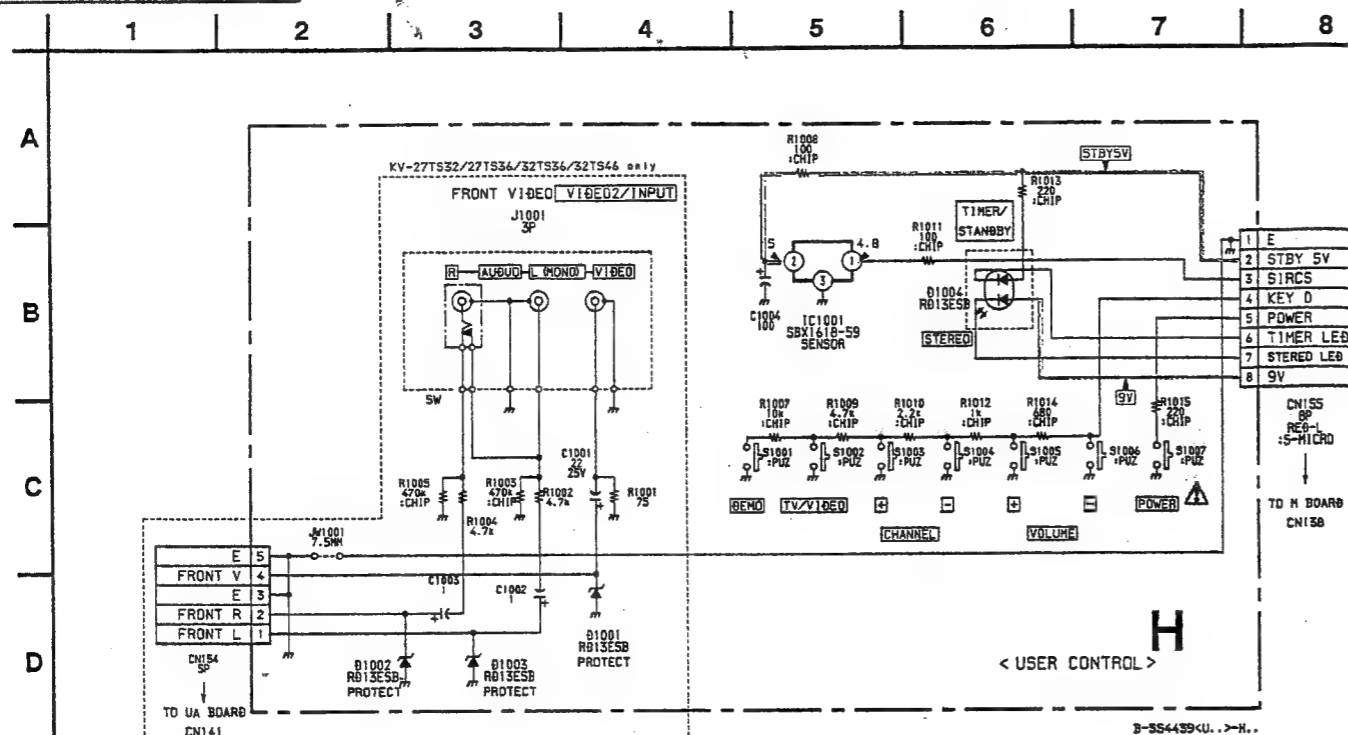
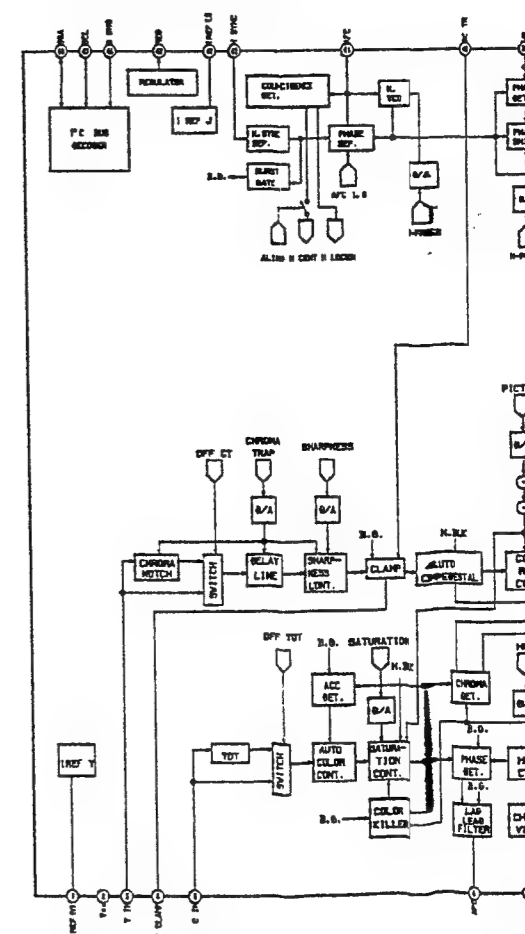
KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y118 RM-Y118  
SA-W200

KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y118 RM-Y118  
SA-W200

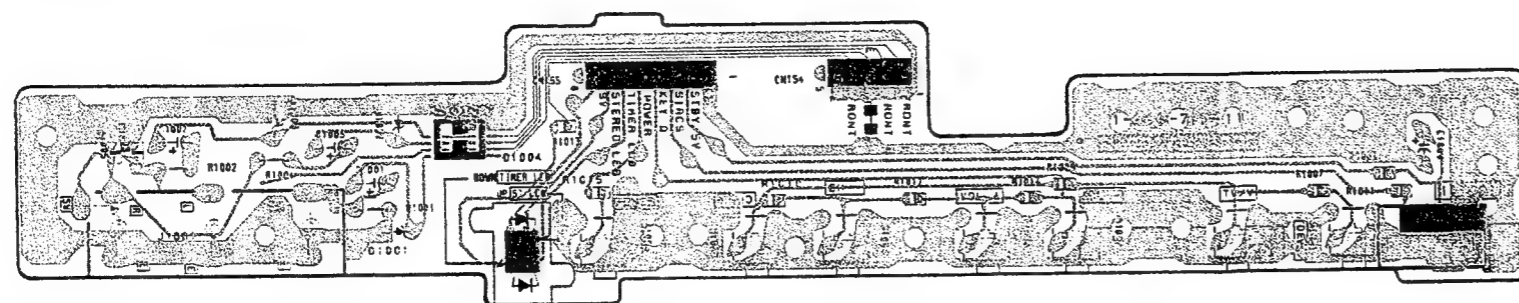
M Board IC150 MC144143

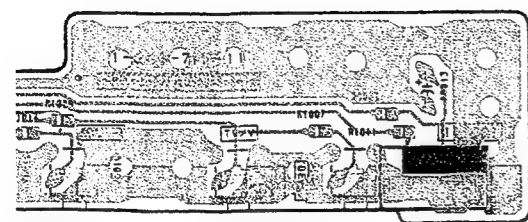


M Board IC301 CXA1465AS



**H** [USER CONTROL]  
— H Board —

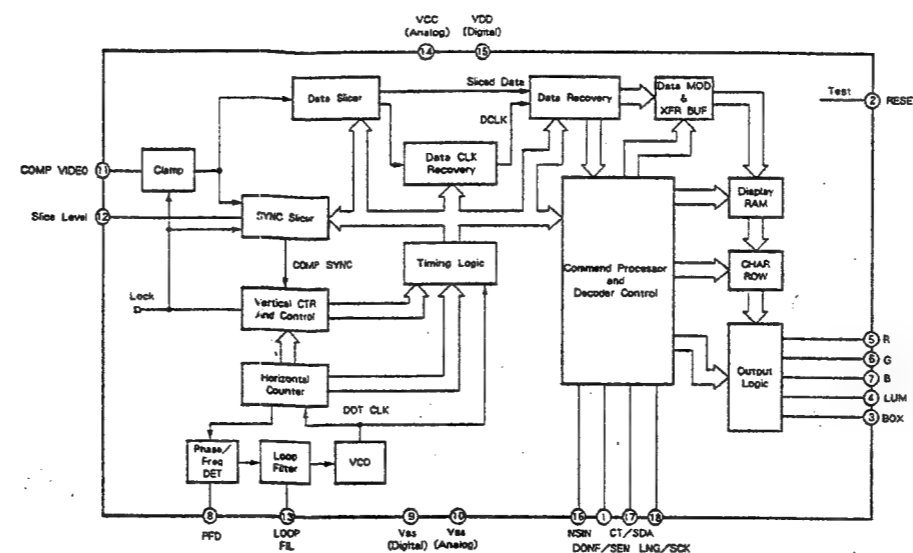




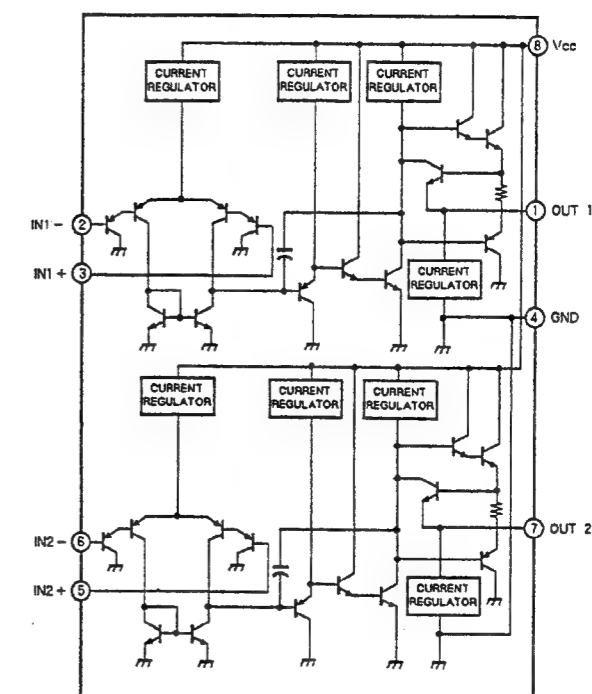
**KV-27TS29/27TS32/27TS36**  
RM-Y116 RM-Y117 RM-Y118

**KV-32TS36/32TS46**  
RM-Y118 RM-Y118  
SA-W200

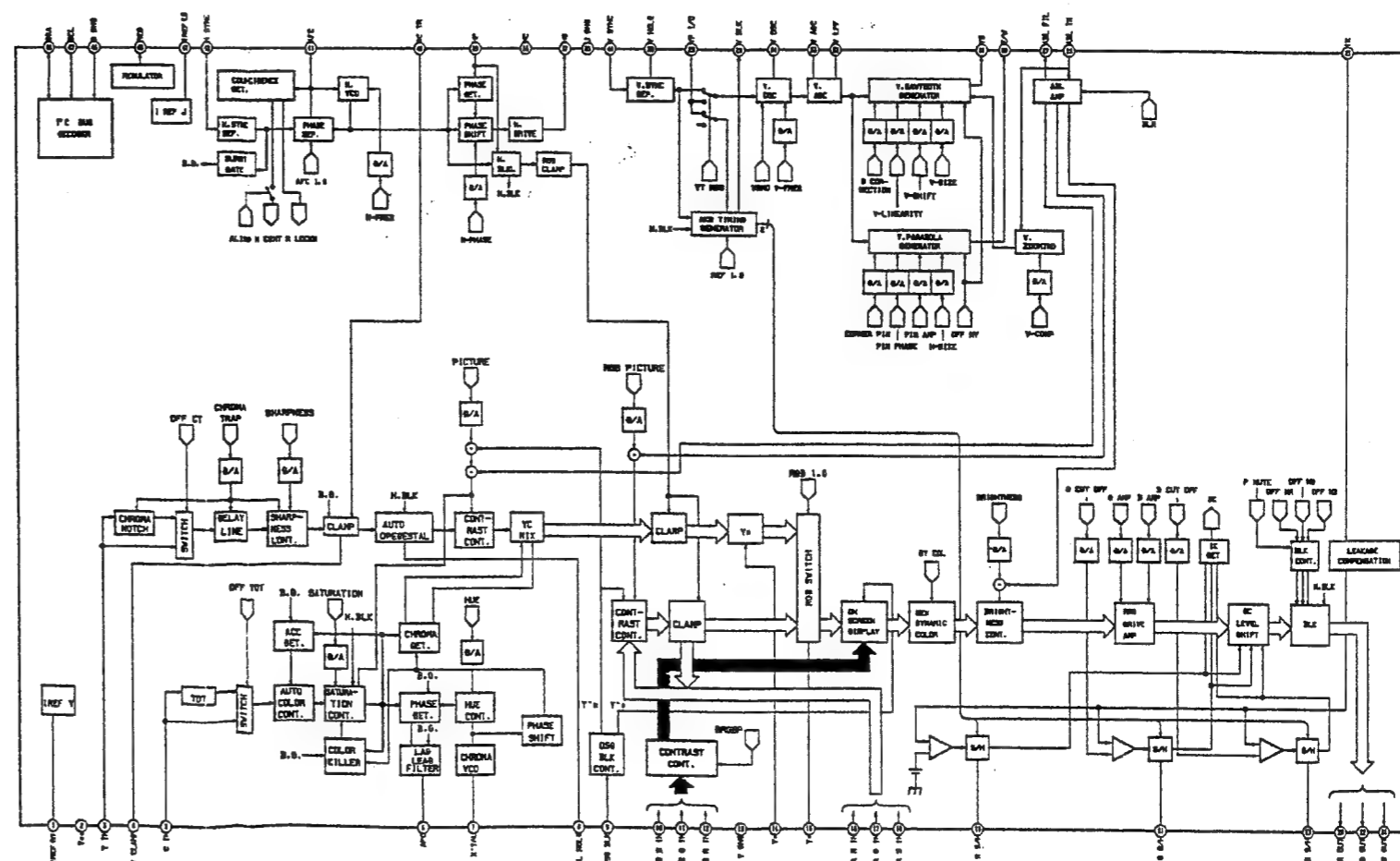
**M Board IC150 MC144143**



**M Board IC202 LM358PS**



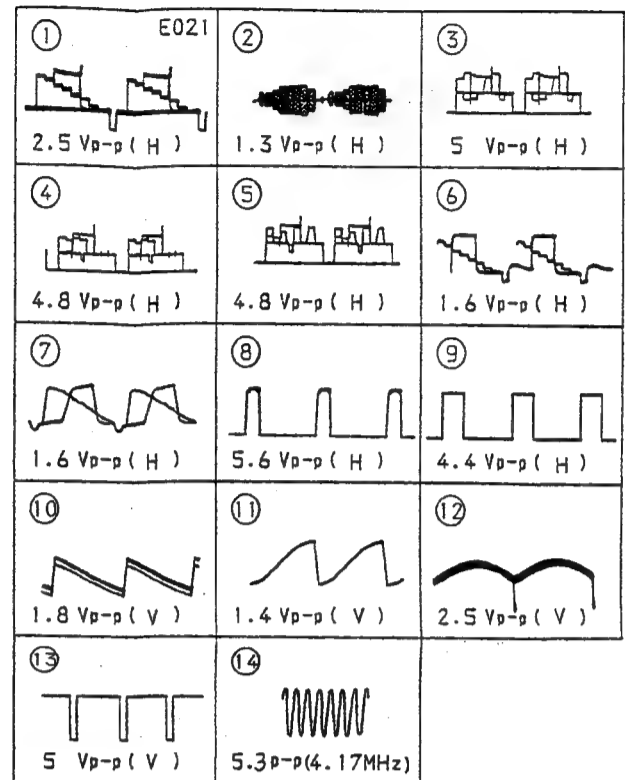
**M Board IC301 CXA1465AS**



— M Board —

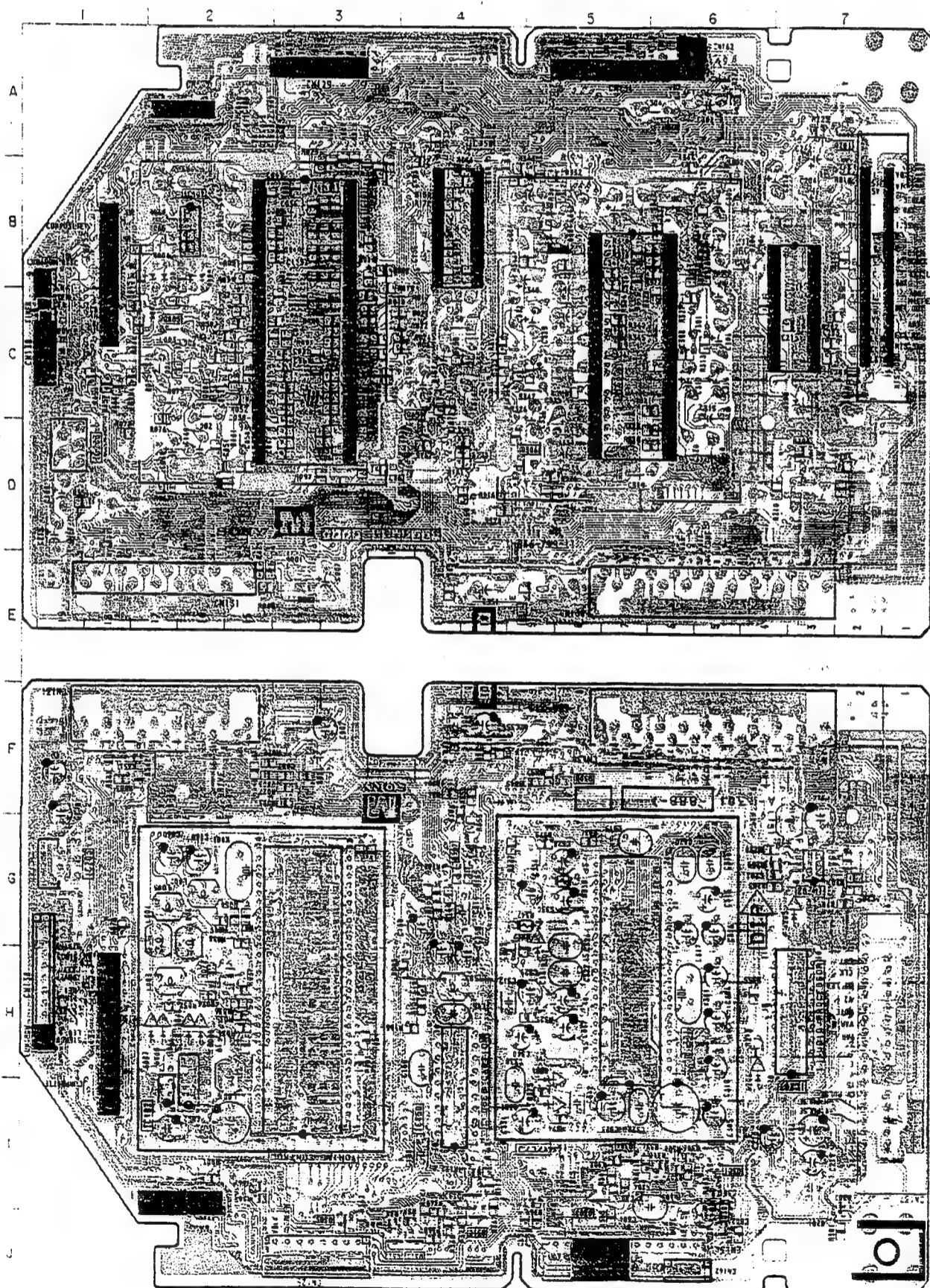
— M Board —

| IC         | DIODE    |
|------------|----------|
| IC101 C-3  | D001 E-3 |
| IC102 B-2  | D002 E-3 |
| IC150 B-4  | D004 F-4 |
| IC201 C-7  | D005 D-2 |
| IC202 G-7  | D006 B-2 |
| IC301 C-5  | D007 B-2 |
|            | D008 B-2 |
|            | D009 B-2 |
|            | D150 C-4 |
|            | D201 J-7 |
|            | D202 I-7 |
|            | D205 C-7 |
|            | D206 B-6 |
|            | D301 B-5 |
|            | D304 B-5 |
|            | D305 F-5 |
|            | D306 F-4 |
| TRANSISTOR |          |
| Q001 F-3   |          |
| Q002 D-4   |          |
| Q004 C-2   |          |
| Q005 C-2   |          |
| Q151 D-4   |          |
| Q201 A-7   |          |
| Q301 I-6   |          |
| Q302 I-6   |          |
| Q307 G-4   |          |
| Q308 F-5   |          |
| Q314 E-4   |          |

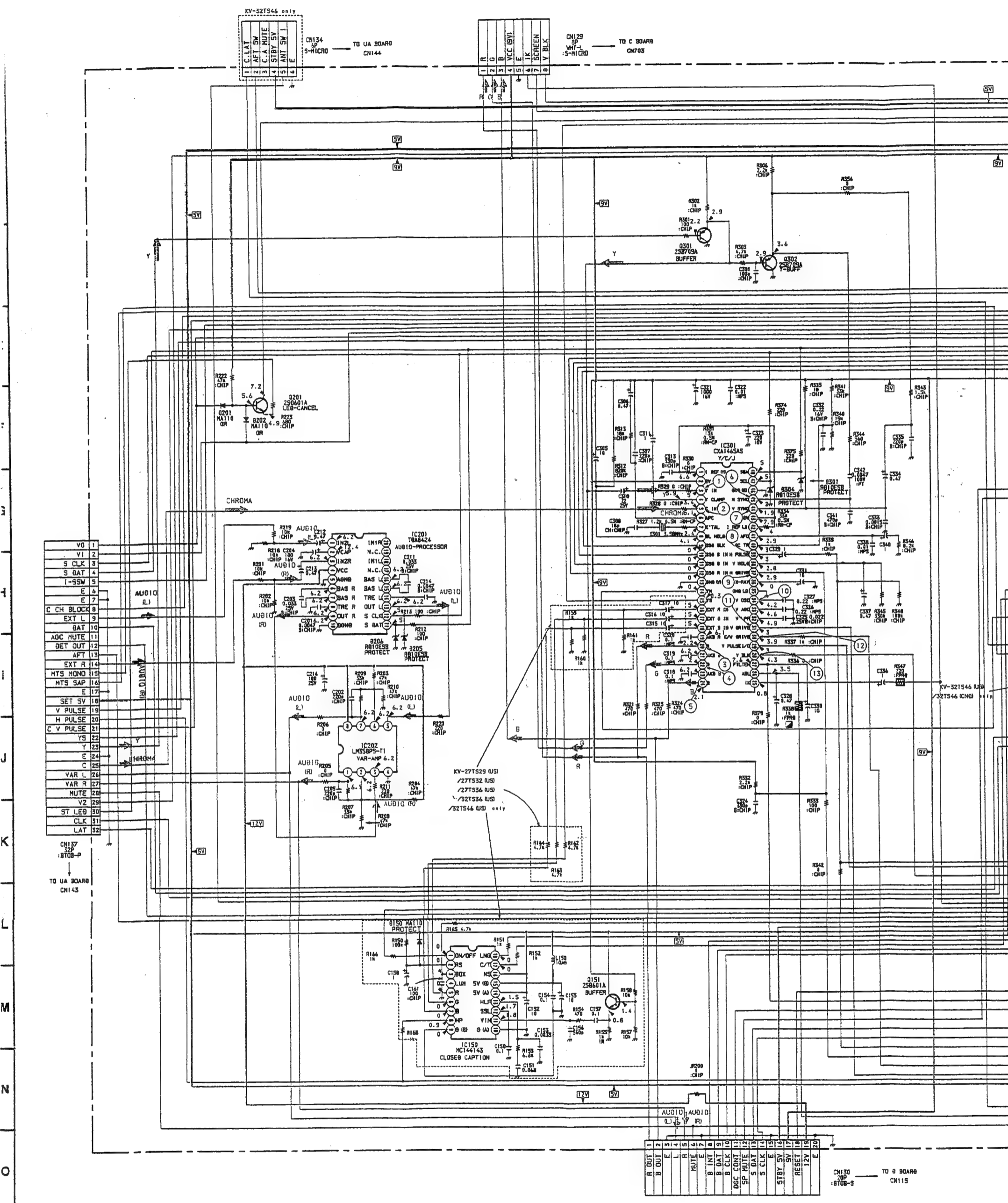


**M** Y/C/J, CONTROL, AUDIO CONTROL,  
CLOSED CAPTION

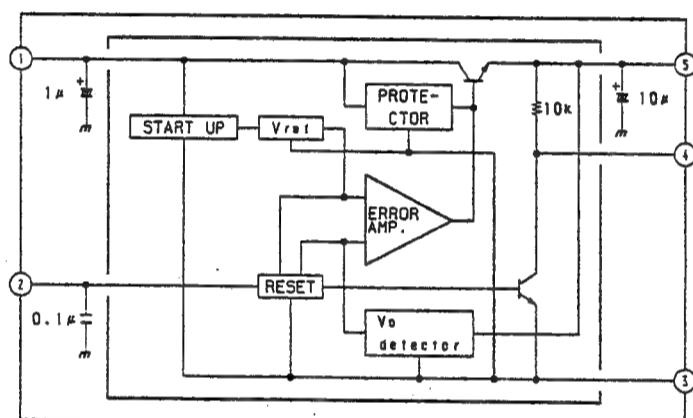
— M Board —



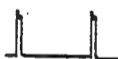













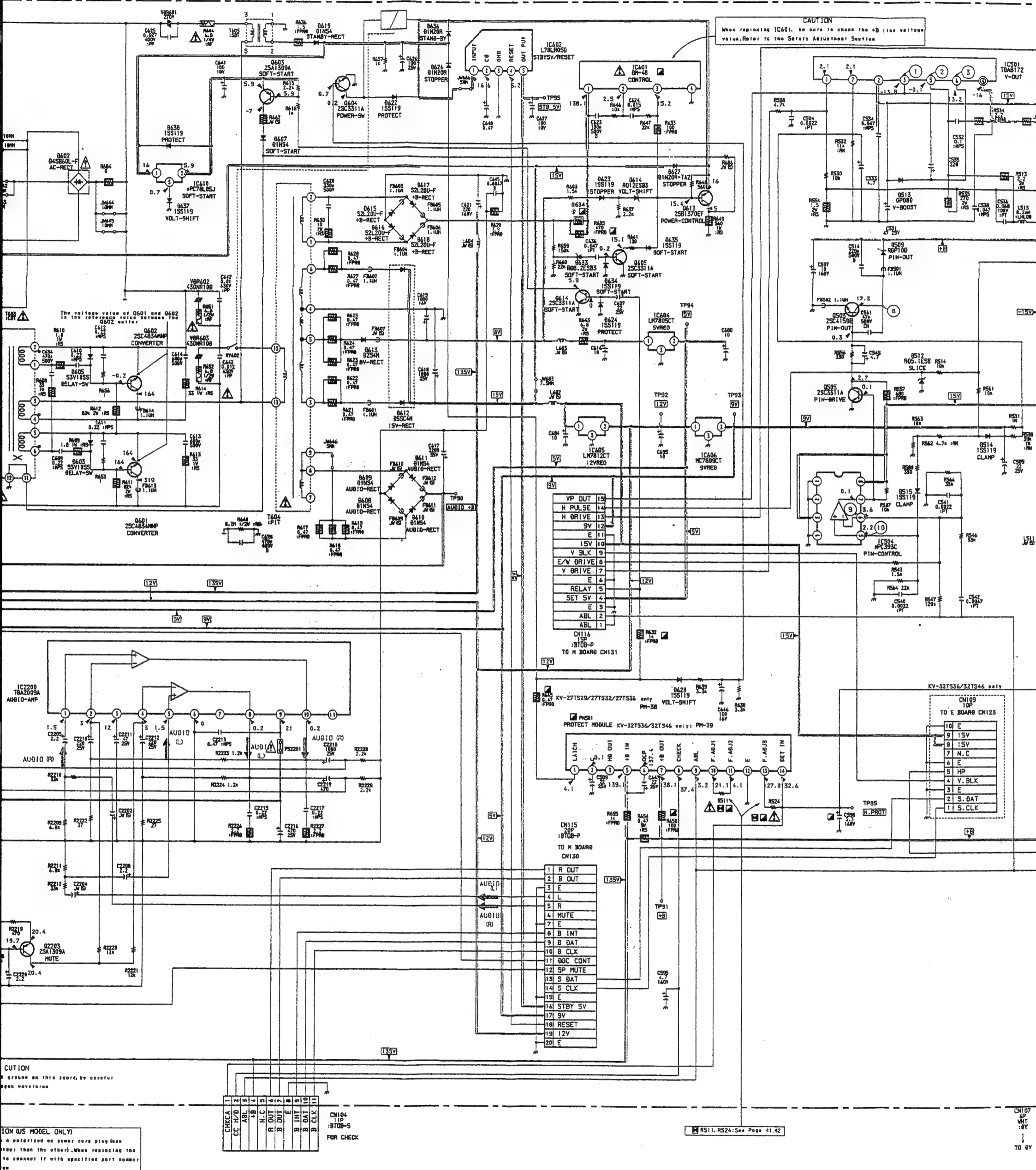




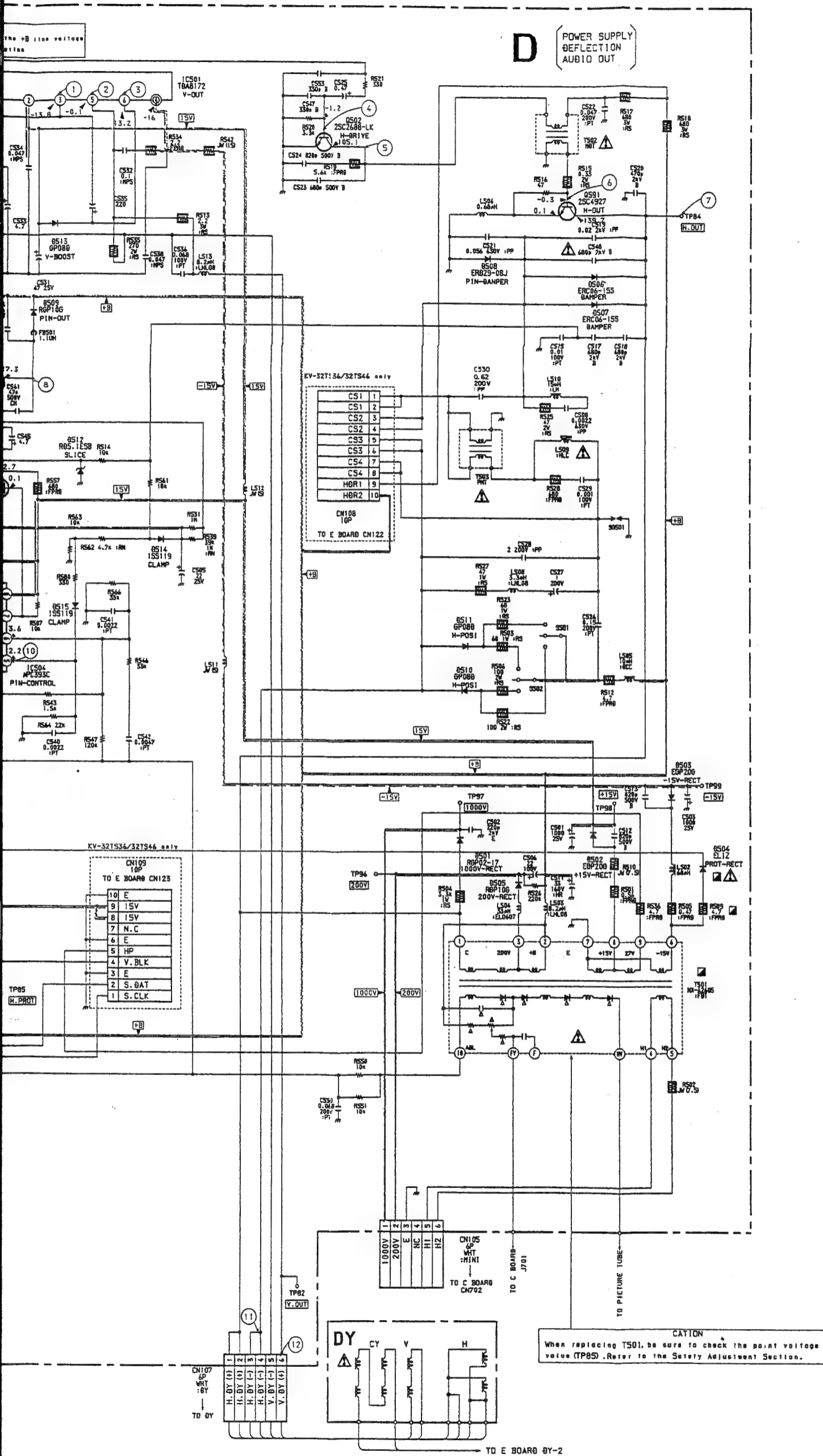


|  |   |  |
|--|---|--|
| <p>①</p>  <p>30 Vp-p ( V )</p>  | <p>②</p>  <p>60 Vp-p ( V )</p>   | <p>③</p>  <p>32 Vp-p ( V )</p>  |
| <p>④</p>  <p>3.5 Vp-p ( H )</p> | <p>⑤</p>  <p>185 Vp-p ( H )</p> | <p>⑥</p>  <p>19 Vp-p ( H )</p>  |
| <p>⑦</p>  <p>1000Vp-p ( H )</p> | <p>⑧</p>  <p>140 Vp-p ( H )</p>  | <p>⑨</p>  <p>2.4 Vp-p ( V )</p> |
| <p>⑩</p>  <p>3.6 Vp-p ( H )</p> | <p>⑪</p>  <p>230 Vp-p ( H )</p> | <p>⑫</p>  <p>2.8 Vp-p ( V )</p> |



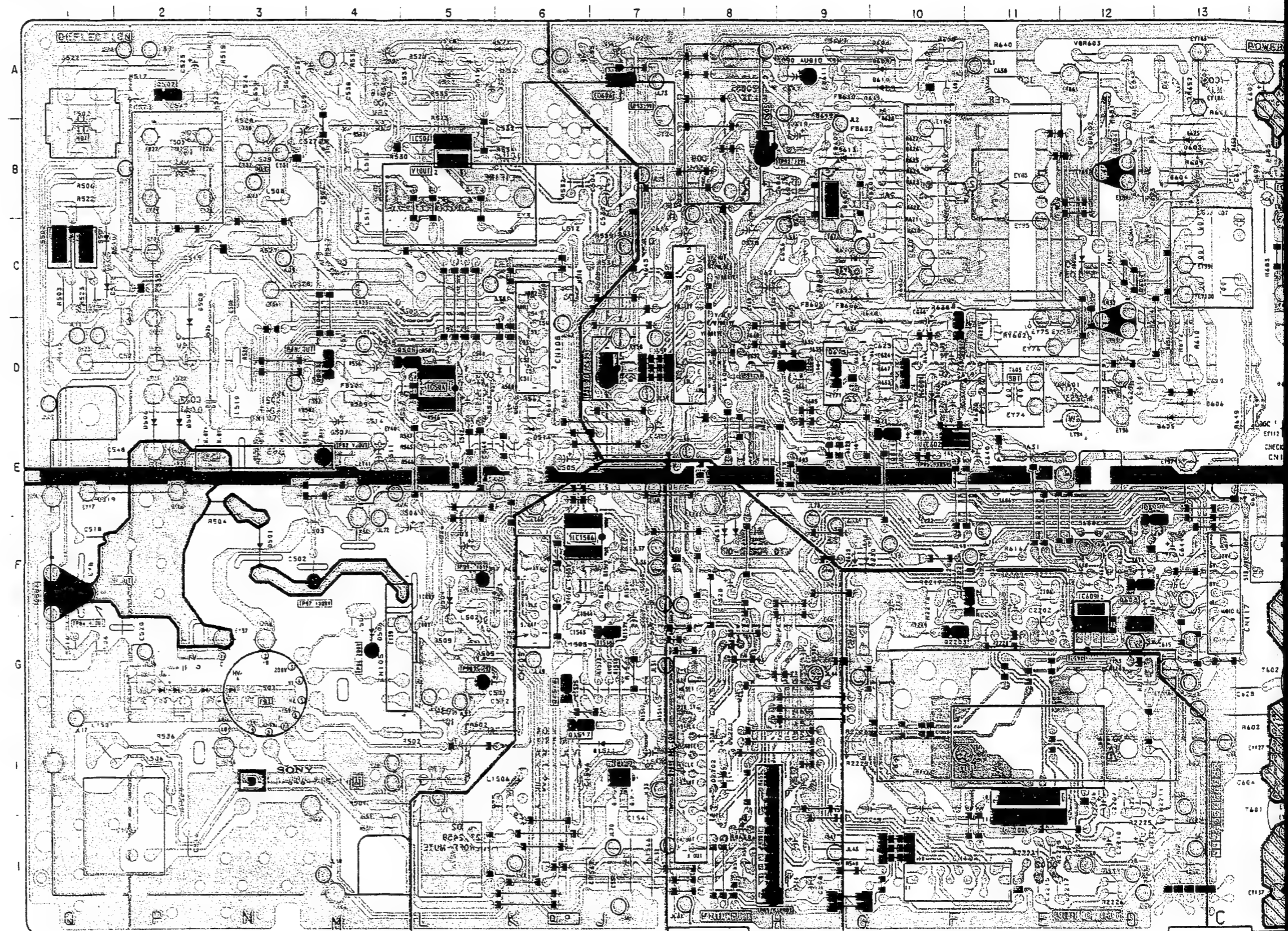


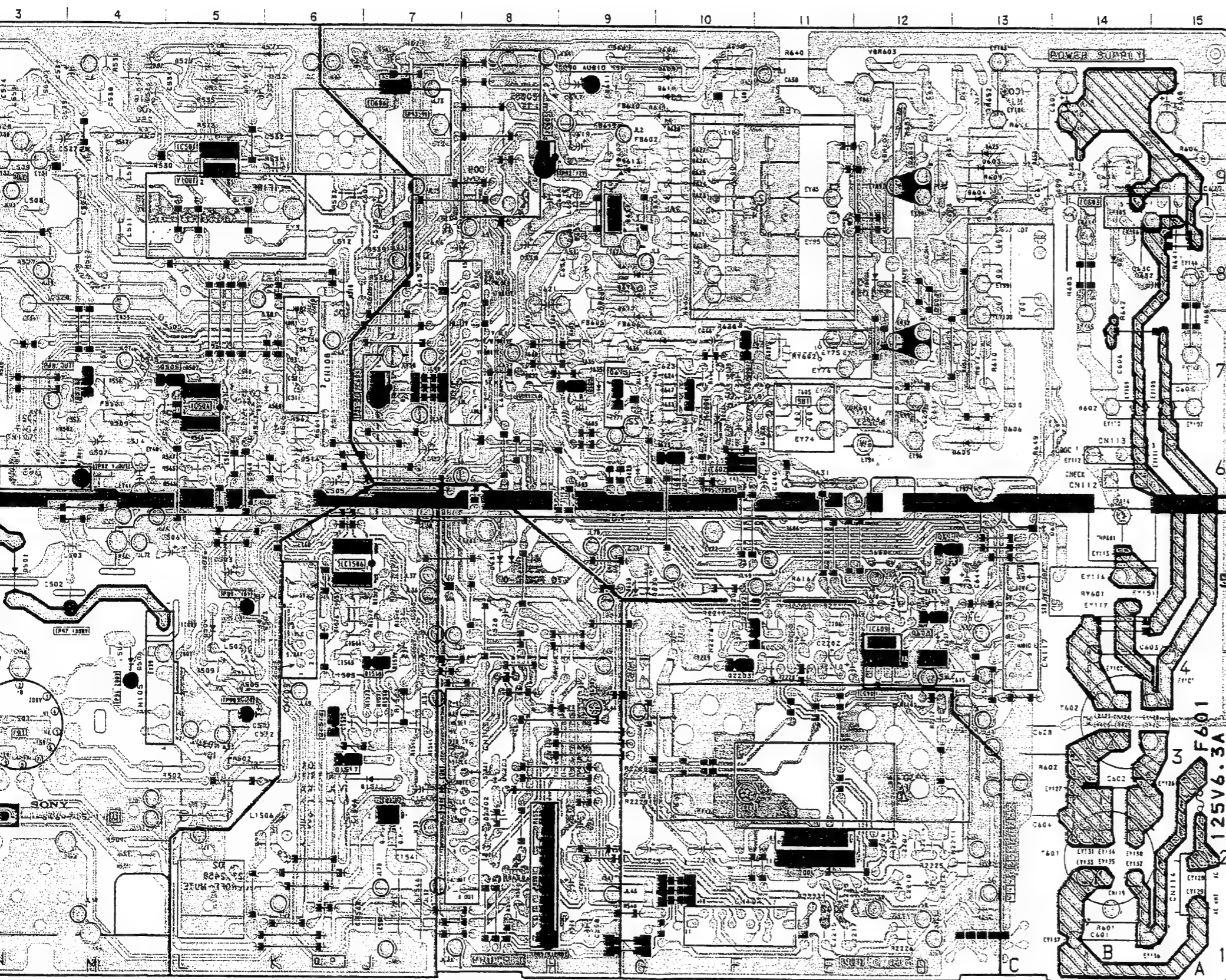




**D** [POWER SUPPLY, DEFLECTION,  
AUDIO OUT]

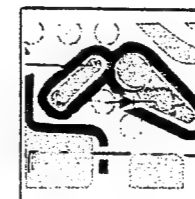
— D Board —



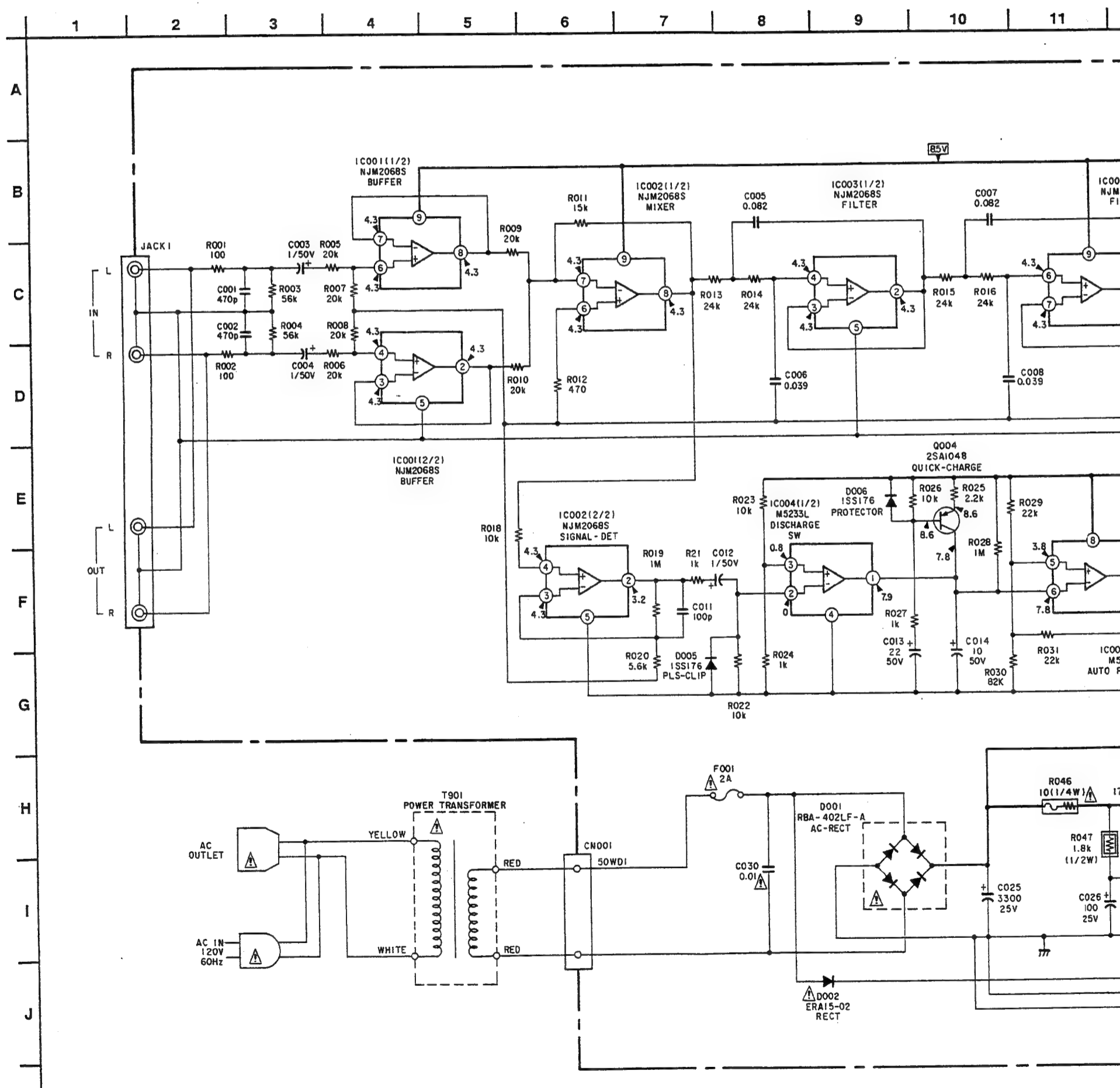


— D Board —

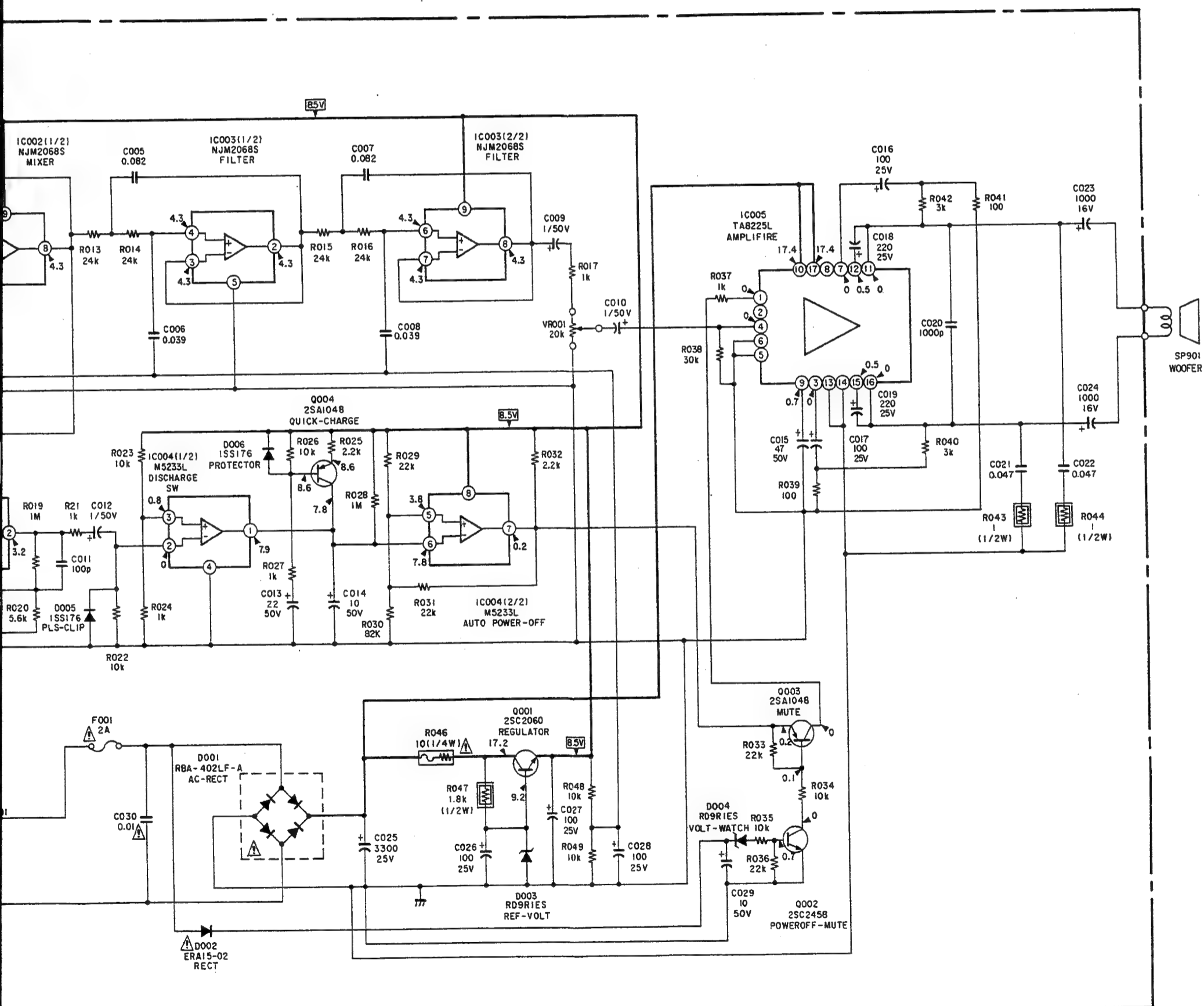
| IC         |      |           |
|------------|------|-----------|
| IC501      | B-5  | D603 B-13 |
| IC504      | D-5  | D605 E-13 |
| IC601      | D-10 | D607 F-12 |
| IC602      | E-10 | D608 A-10 |
| IC604      | D-7  | D609 A-10 |
| IC605      | B-8  | D610 A-10 |
| IC606      | A-7  | D611 A-10 |
| IC610      | G-12 | D612 B-9  |
| IC2200     | I-11 | D613 B-9  |
|            |      | D614 D-10 |
|            |      | D615 C-9  |
|            |      | D616 C-9  |
|            |      | D617 C-9  |
|            |      | D618 D-10 |
|            |      | D619 D-10 |
|            |      | D622 D-11 |
|            |      | D623 D-10 |
|            |      | D624 E-10 |
|            |      | D626 D-10 |
|            |      | D627 D-9  |
|            |      | D628 E-9  |
|            |      | D629 F-9  |
|            |      | D630 F-9  |
|            |      | D631 F-8  |
|            |      | D632 F-8  |
|            |      | D633 C-9  |
|            |      | D634 C-9  |
|            |      | D635 D-9  |
|            |      | D636 D-11 |
|            |      | D637 F-12 |
|            |      | D638 F-12 |
|            |      | D2201 H-8 |
| TRANSISTOR |      |           |
| Q502       | A-2  |           |
| Q503       | D-4  |           |
| Q505       | D-5  |           |
| Q591       | F-1  |           |
| Q601       | B-12 |           |
| Q602       | C-12 |           |
| Q603       | F-12 |           |
| Q604       | D-10 |           |
| Q605       | D-9  |           |
| Q611       | F-12 |           |
| Q613       | D-9  |           |
| Q614       | E-10 |           |
| Q2202      | F-10 |           |
| Q2203      | G-10 |           |
| DIODE      |      |           |
| D501       | F-3  |           |
| D502       | H-5  |           |
| D503       | F-5  |           |
| D504       | F-5  |           |
| D505       | G-4  |           |
| D506       | E-2  |           |
| D507       | E-2  |           |
| D508       | C-2  |           |
| D509       | D-4  |           |
| D510       | C-1  |           |
| D511       | C-1  |           |
| D512       | D-7  |           |
| D513       | A-5  |           |
| D514       | E-6  |           |
| D515       | D-6  |           |
| D601       | E-13 |           |
| D602       | D-14 |           |
| TEST POINT |      |           |
| TP82       | E-4  |           |
| TP84       | F-1  |           |
| TP85       | I-8  |           |
| TP90       | A-9  |           |
| TP91       | D-8  |           |
| TP92       | B-8  |           |
| TP93       | A-7  |           |
| TP94       | D-7  |           |
| TP95       | E-10 |           |
| TP96       | G-4  |           |
| TP97       | F-3  |           |
| TP98       | G-5  |           |
| TP99       | F-5  |           |



**NOTE:**  
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



7 8 9 10 11 12 13 14 15 16 17 18 19



# SUPER WOOFER

— SUPER WOOFER Board —

KV-27TS29/27TS32/27TS36

RM-Y116 RM-Y117 RM-Y118

KV-32TS36/32TS46

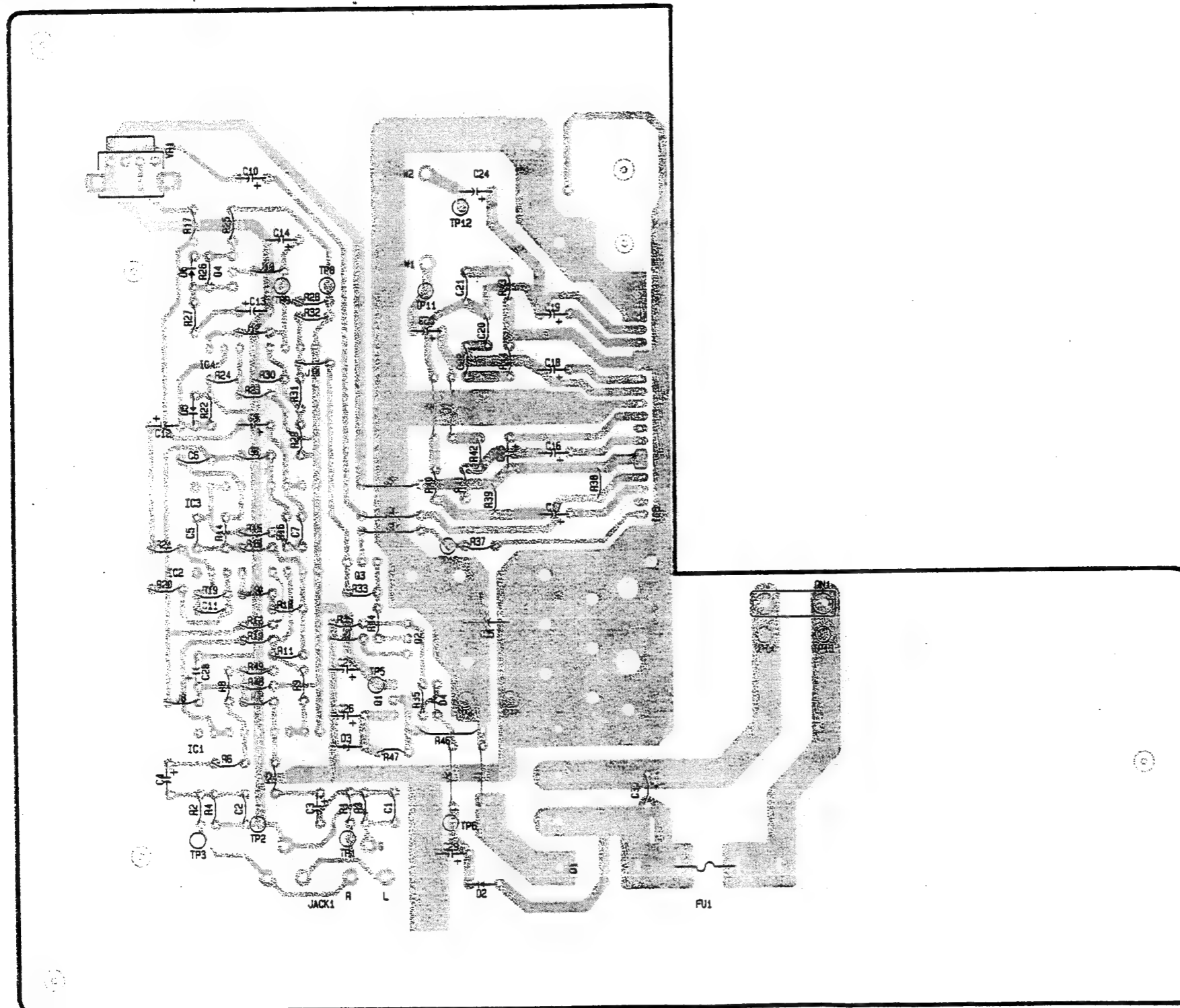
RM-Y116 RM-Y118  
SA-W200

KV-27TS29/27TS32/27TS36

RM-Y116 RM-Y117 RM-Y118

KV-32TS36/32TS46

RM-Y116 RM-Y118  
SA-W200

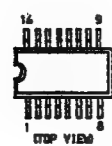


KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y116 RM-Y118  
SA-W200

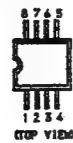
KV-27TS29/27TS32/27TS36  
RM-Y116 RM-Y117 RM-Y118  
KV-32TS36/32TS46  
RM-Y116 RM-Y118  
SA-W200

## 6-5. SEMICONDUCTORS

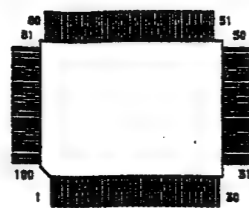
BU4053BF  
CXA1315M



LM358PS  
MM1114XFF  
MM1118XFF



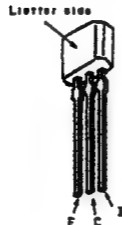
MB86144



TDA2009A



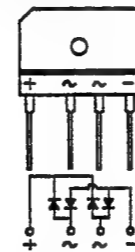
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2SC3311A



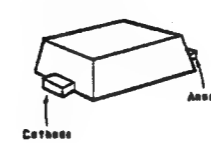
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Ø45B60L  
RBA-402LF-A



HVU359-TRU



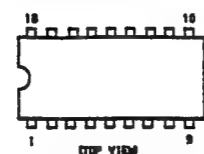
CXA1465AS  
CXA1545AS



LM7805CT  
LM7812CT  
MC7809CT  
RC7809FA



MC144143  
Z86128120PSC



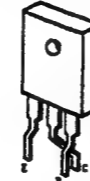
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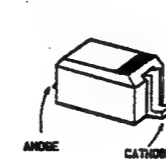
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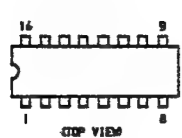
Ø55C4MR



MA110  
1T33



CXA1526P



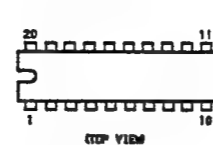
L78LR05Ø-MA



M5233L



TDA8429



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2SB601A



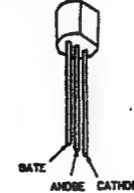
2SC4927



EGR20G  
EGR20G-TKG23  
EL1Z  
ERA81-004TP1  
Ø08Ø  
RGP02-17  
RGP02-17PKG23  
RGP10GPK23  
ISS176



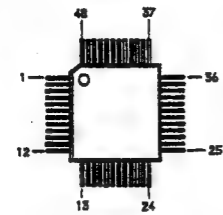
SHØR3Ø42



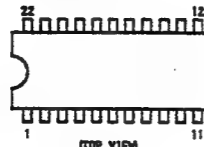
CXP80424-SV4397



MB3512PF-EF



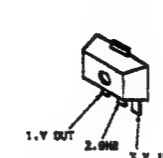
M52470AP



TS7SUØ4F



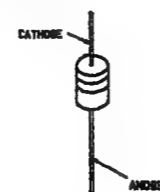
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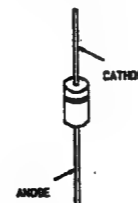
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2SB774



Ø1NS4  
Ø1N2ØR  
ERA15-Ø2  
ERA82-ØØ4  
ERA83-ØØ6  
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RØ1ØESB2  
RØ12ESB3  
RØ13ESB  
RØ13ESB2  
RØ33ESB1  
RØ33ESB2  
RØ3.6ESB1  
RØ5.1ESB  
RØ5.1ESB1  
RØ8.2ESB3  
RØ9R1ES  
ISS119



ERCØ6-15S  
RU-3AM  
S2L2ØUF  
S3V1Ø5S



ERØ29-Ø8J



ØM-48  
PM-38  
PM-39



MB4Ø176PF-EF



NJM2Ø68S



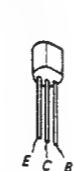
SBX1618-51



2SA1Ø91  
2SA1Ø91R



2SC2Ø6Ø



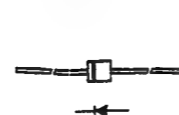
2SA1Ø48  
2SA2458



2SC2688



Ø2S4MF  
Ø2S4MTA1



## SECTION 7

### EXPLODED VIEWS

## NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

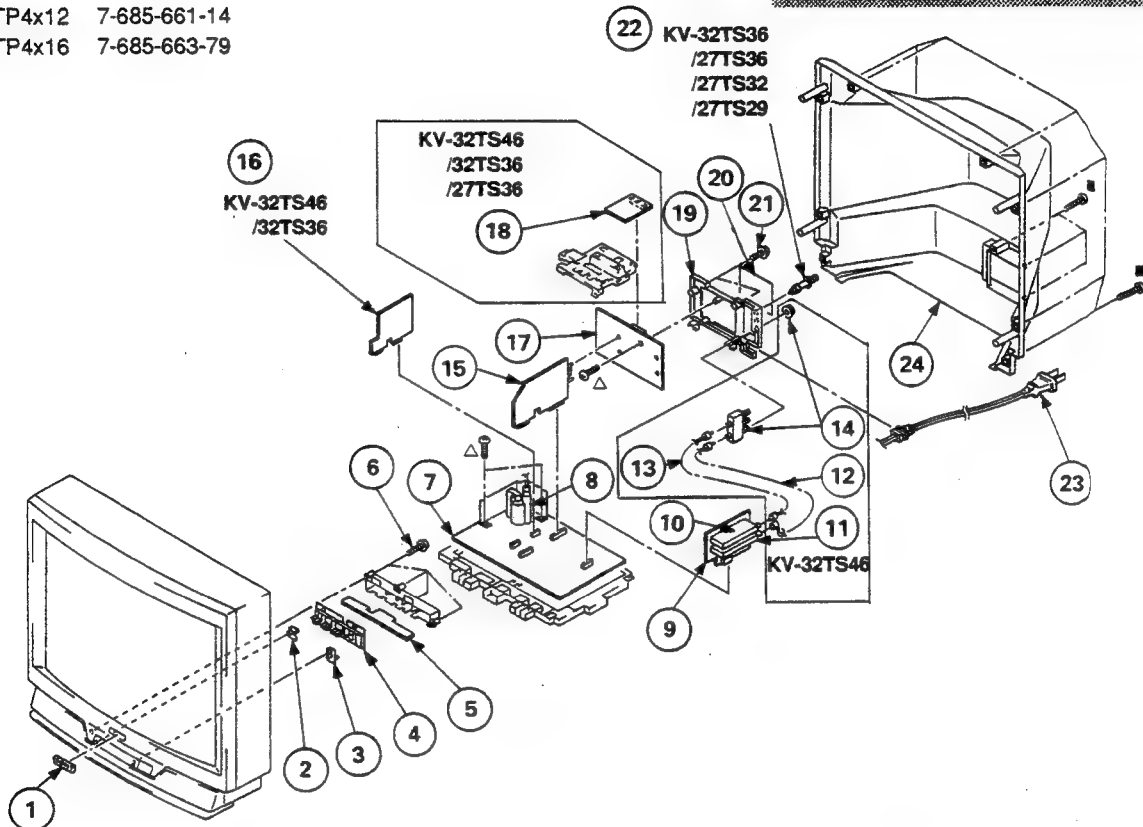
The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

#### 7-1. CHASSIS

$\Delta$ : BVTP4x12 7-685-661-14

■: BVTP4x16 7-685-663-79



| REF.NO. | PART NO.              | DESCRIPTION  | REMARK | REF.NO. | PART NO.      | DESCRIPTION  | REMARK |
|---------|-----------------------|--|--------|---------|---------------|--|--------|
| 1       | 4-394-048-01          | EMBLEM (NO.9), SONY  |        | 15      | *A-1306-433-A | M BOARD, COMPLETE (KV-32TS46 (CND))                      |        |
| 2       | 4-039-458-01          | FILTER, REMOTE   |        | 15      | *A-1306-434-A | M BOARD, COMPLETE (KV-32TS46 (US))                       |        |
| 3       | 4-039-457-01          | GUIDE, LED   |        | 16      | *A-1341-622-A | E BOARD, COMPLETE (KV-32TS46/32TS36)                     |        |
| 4       | 4-039-525-01          | BUTTON, MULTI  |        | 17      | *A-1394-415-A | UA BOARD, COMPLETE (KV-32TS36/27TS36)                    |        |
| 5       | *1-646-717-11         | H BOARD  |        | 17      | *A-1394-441-A | UA BOARD, COMPLETE (W-27TS32)                            |        |
| 6       | 4-319-520-11          | SCREW, SPECIAL (+PW4X30)   |        | 17      | *A-1394-437-A | UA BOARD, COMPLETE (W-27TS29)                            |        |
| 7       | *A-1346-112-A         | D BOARD, COMPLETE (KV-32TS46/32TS36)                                 |        | 17      | *A-1394-435-A | UA BOARD, COMPLETE (W-32TS46)                            |        |
| 7       | *A-1346-129-A         | D BOARD, COMPLETE (KV-27TS36/27TS32/27TS29)                          |        | 18      | *A-1195-062-A | P BOARD, COMPLETE (KV-32TS46/32TS36/27TS36)              |        |
| 8       | $\Delta$ 1-453-146-11 | TRANSFORMER ASSY. FLYBACK (MX-2604A3)                                |        | 19      | 4-039-517-01  | TERMINAL BOARD, ANTENNA (W-32TS46)                       |        |
| 9       | *A-1297-065-A         | A BOARD, COMPLETE (KV-32TS36/27TS36/27TS32/27TS29)                   |        | 19      | 4-039-524-01  | TERMINAL BOARD, ANTENNA (KV-32TS36/27TS36/27TS32/27TS29) |        |
| 9       | *A-1297-112-A         | A BOARD, COMPLETE (KV-32TS46)  |        | 20      | 4-040-090-01  | LABEL, TERMINAL (W-27TS32)                               |        |
| 10      | $\Delta$ 8-598-039-00 | TUNER BTF-WA401  |        | 20      | 4-039-903-01  | LABEL, TERMINAL (W-27TS29)                               |        |
| 11      | $\Delta$ 8-598-047-00 | TUNER BTF-WA401  |        | 20      | 4-039-834-01  | LABEL, TERMINAL (KV-32TS46/32TS36/27TS36)                |        |
| 12      | *1-751-136-11         | CABLE, PIN (KV-32TS46)   |        | 21      | 4-382-854-11  | SCREW (M3X10), P, SW (+)                                 |        |
| 13      | *1-751-135-11         | CABLE, PIN (KV-32TS46)   |        | 22      | 1-573-657-11  | PLUG, P-PIN (KV-32TS36/27TS36/27TS32/27TS29)             |        |
| 14      | 1-417-178-11          | SELECTOR, ANTENNA (AS-2) (KV-32TS46)                                 |        | 23      | 1-751-059-11  | CORD, POWER (WITH CONNECTOR) 10A/120V                    |        |
| 15      | *A-1306-427-A         | M BOARD, COMPLETE (KV-32TS36/27TS36/27TS32/27TS29 (US))              |        | 24      | 4-039-463-01  | COVER, REAR (KV-27TS36/27TS32/27TS29)                    |        |
| 15      | *A-1306-432-A         | M BOARD, COMPLETE (KV-32TS36 (CND)/27TS36 (CND)/27TS32/27TS29 (CND)) |        | 24      | 4-039-634-01  | COVER, REAR (KV-32TS36/32TS36)                           |        |

KV-27TS29/27TS32/27TS36

RM-Y116 RM-Y117 RM-Y118

KV-32TS36/32TS46

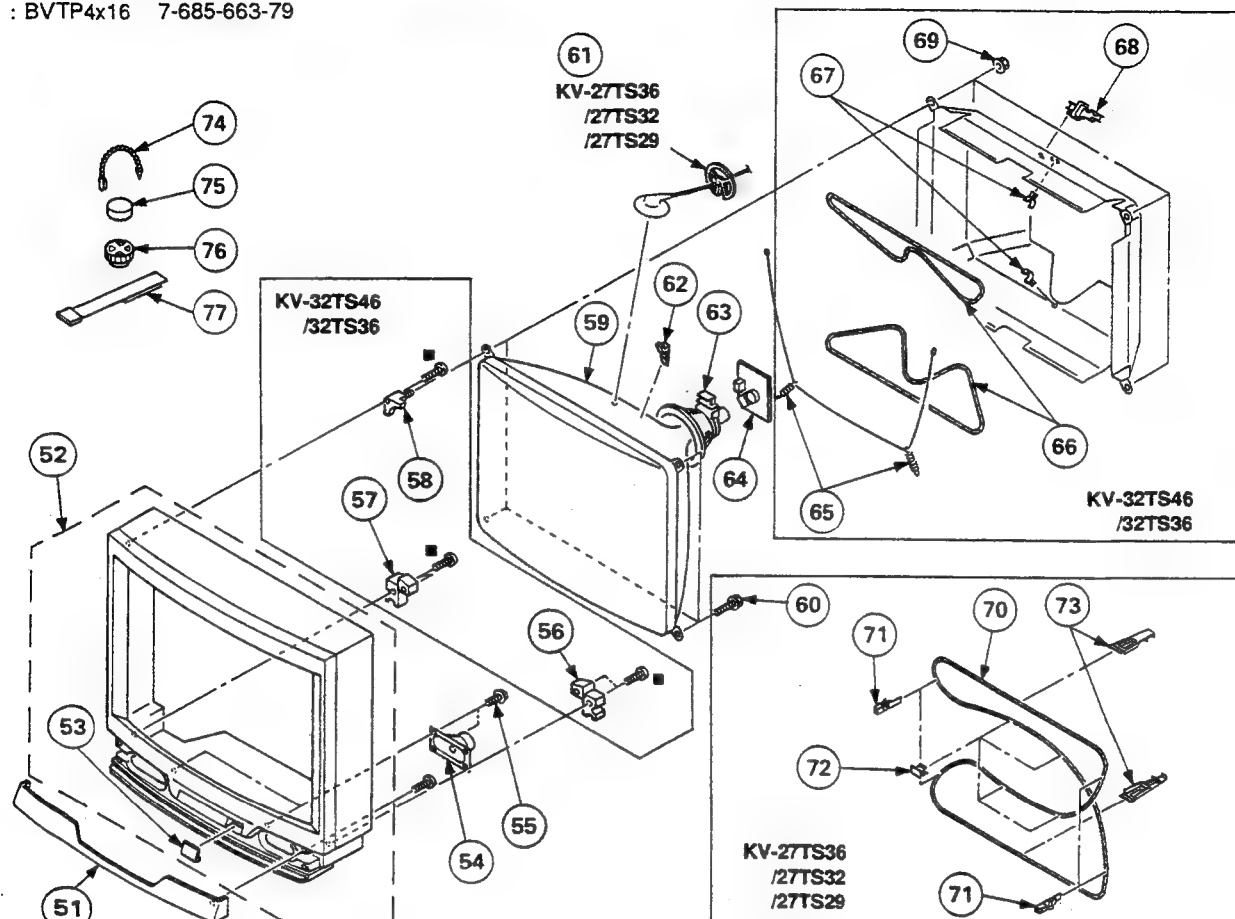
RM-Y118 RM-Y118  
SA-W200

Les composants identifiés par une trame et une  
marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le  
numéro spécifié.

The components identified by shading and mark  $\Delta$   
are critical for safety.  
Replace only with part number specified.

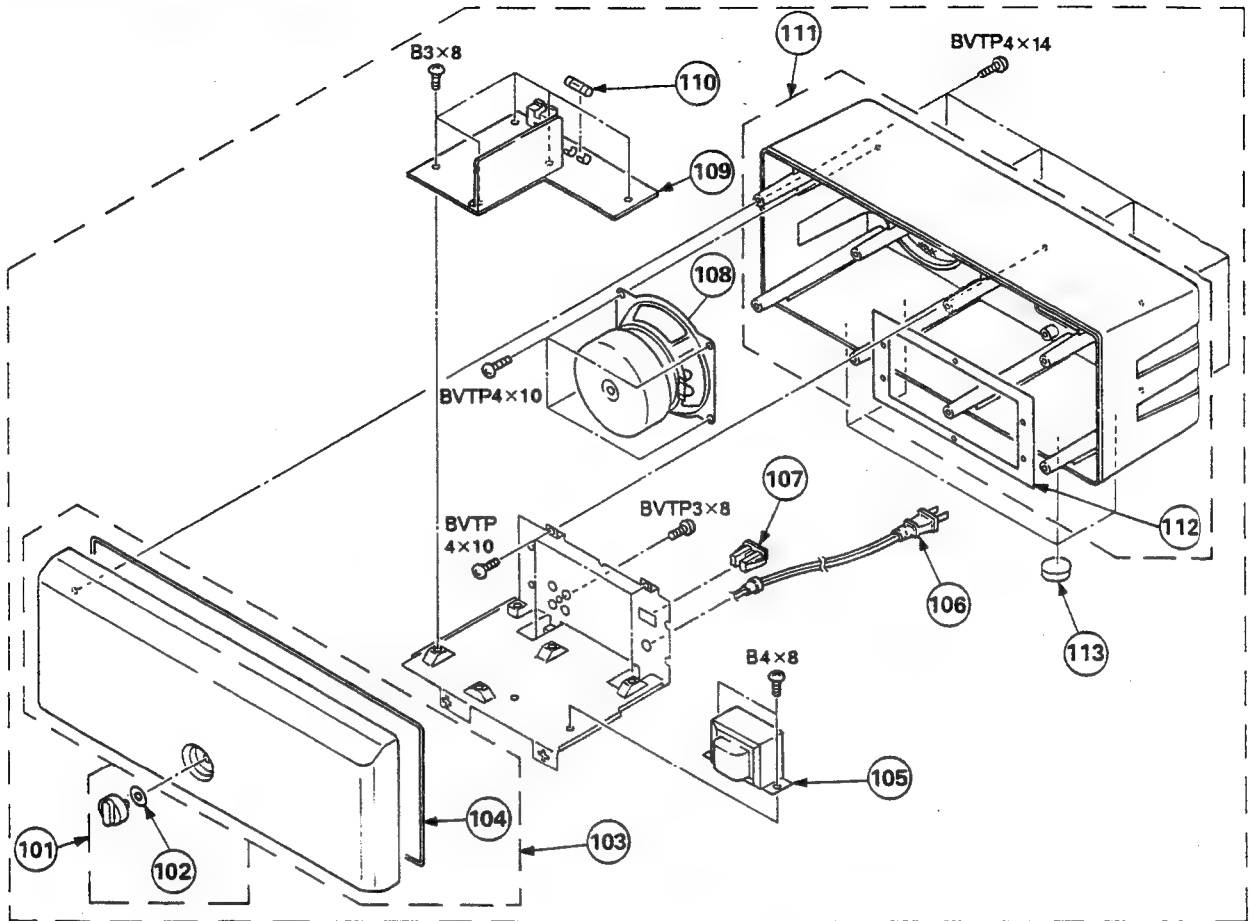
## 7-2. PICTURE TUBE


■ : BVTP4x16 7-685-663-79




| REF.NO. | PART NO.              | DESCRIPTION  | REMARK | REF.NO. | PART NO.              | DESCRIPTION  | REMARK |
|---------|-----------------------|--|--------|---------|-----------------------|--|--------|
| 51      | X-4031-018-1          | GRILLE ASSY, SPEAKER (KV-32TS46/32TS36)            |        | 62      | 3-704-495-01          | SPACER, DY (KV-32TS46/32TS36)                      |        |
| 51      | X-4031-029-1          | GRILLE ASSY, SPEAKER (KV-27TS36/27TS32/27TS29)     |        | 63      | $\Delta$ 1-451-315-41 | DEFLECTION YOKE (Y34FXA) (KV-32TS46/32TS36)        |        |
| 52      | X-4031-039-1          | BEZNET ASSY (KV-27TS36)                            | 53     | 63      | $\Delta$ 1-451-275-41 | DEFLECTION YOKE (Y34FXA) (KV-27TS36/27TS32/27TS29) |        |
| 52      | X-4031-038-2          | BEZNET ASSY (KV-27TS32)                            | 53     | 64      | *A-1331-264-A         | C BOARD, COMPLETE                                  |        |
| 52      | X-4031-026-1          | BEZNET ASSY (KV-27TS29)                            | 53     | 65      | 4-036-329-01          | SPRING (B), TENSION (KV-27TS36/27TS32/27TS29)      |        |
| 52      | X-4031-019-1          | BEZNET ASSY (KV-32TS36)                            | 53     | 66      | $\Delta$ 1-402-952-11 | COIL, DEMAGNETIZATION (KV-32TS46/32TS36)           |        |
| 52      | X-4031-019-2          | BEZNET ASSY (KV-32TS46)                            | 53     | 67      | *4-371-629-01         | STOPPER, WIRE (KV-32TS46/32TS36)                   |        |
| 53      | 4-039-462-01          | DOOR, CONTROL (KV-32TS36/27TS36)                   |        | 68      | 4-033-681-01          | HOLDER, LEAD (KV-32TS46/32TS36)                    |        |
| 53      | 4-039-462-11          | DOOR, CONTROL (KV-27TS32)                          |        | 69      | 4-387-204-01          | NUT, SPECIAL, PICTURE TUBE (KV-32TS46/32TS36)      |        |
| 53      | 4-039-459-01          | PANEL (KV-27TS29)                                  |        | 70      | 1-406-726-11          | COIL, DEGAUSSING (KV-27TS36/27TS32/27TS29)         |        |
| 53      | 4-039-462-21          | DOOR, CONTROL (KV-32TS46)                          |        | 71      | 4-040-388-01          | HOLDER(S), DGC (KV-27TS36/27TS32/27TS29)           |        |
| 54      | 1-544-549-11          | SPEAKER  |        | 72      | 4-040-537-01          | HOLDER(A), DGC (KV-27TS36/27TS32/27TS29)           |        |
| 55      | 4-388-477-01          | SCREW(3X16), TAPPING, +BV WASHER                   |        | 73      | 4-040-387-01          | HOLDER(M), DGC (KV-27TS36/27TS32/27TS29)           |        |
| 56      | *4-031-428-01         | SUPPORT (RIGHT) (PICTURE TUBE) (KV-32TS46/32TS36)  |        | 74      | 4-308-870-00          | CLIP, LEAD WIRE                                    |        |
| 57      | *4-031-430-01         | SUPPRT (LEFT) (PICTURE TUBE) (KV-32TS46/32TS36)    |        | 75      | 1-452-032-00          | MAGNET, DISK                                       |        |
| 58      | 4-031-429-01          | BRACKET, PICTURE TUBE                              |        | 76      | 1-452-094-00          | MAGNET, ROTATABLE; 15MM $\phi$                     |        |
| 59      | $\Delta$ 8-733-723-05 | PICTURE TUBE (A80JYV50X) (KV-32TS46/32TS36)        |        | 77      | X-4306-312-0          | PERMALLOY ASSY, CONVERGENCE                        |        |
| 59      | $\Delta$ 8-733-838-05 | PICTURE TUBE (A68KZJ50X) (KV-27TS36/27TS32/27TS29) |        |         |                       |  |        |
| 60      | 4-390-505-01          | SCREW(7), TAPPING (KV-27TS36/27TS32/27TS29)        |        |         |                       |  |        |
| 61      | *3-704-372-01         | HOLDER, HV CABLE (KV-27TS36/27TS32/27TS29)         |        |         |                       |  |        |

**7-3. SPEAKER**  
**(KV-32TS46 (US/CND))**



The components identified by shading and mark  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une  
marque  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le  
numéro spécifié.

| REF.NO. | PART NO.     | DESCRIPTION            | REMARK | REF.NO.      | PART NO.                  | DESCRIPTION        | REMARK |
|---------|--------------|------------------------|--------|--------------|---------------------------|--------------------|--------|
| 101     | 9-904-749-01 | VOLUME NOB             | 102    | 108          | 9-900-278-01              | SPEAKER            | 112    |
| 102     | 9-904-748-01 | FELT WASHER            |        | 109          | 9-904-754-01              | AMP KIT(TWY1019-A) |        |
| 103     | 9-904-745-01 | FRONT CASE             | 104    | 110          | 9-904-752-01              | FUSE               |        |
| 104     | 9-904-747-01 | ENCLOSURE SEALANT TUBE |        | 111          | 9-904-744-01              | CABINET            |        |
| 105     | 9-904-751-01 | TRANSFORMER POWER      | 112    | 9-904-746-01 | ENCLOSURE SEALANT PACKING |                    |        |
| 106     | 9-904-750-01 | CORD, POWER            |        | 113          | 4-040-527-01              | FOOT               |        |
| 107     | 9-904-753-01 | AC OUTLET              |        |              |                           |                    |        |

KV-27TS29/27TS32/27TS36

RM-Y116 RM-Y117 RM-Y118

KV-32TS36/32TS46

RM-Y118 RM-Y118  
SA-W200

## SECTION 8

## ELECTRICAL PARTS LIST

P

## NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

• Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

## RESISTORS

• All resistors are in ohms  
• F: nonflammable

When indicating parts by reference number, please include the board name.

## CAPACITORS

MF:  $\mu$ F, PF:  $\mu$ F

• The components identified by  $\Delta$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.  
Should replacement be required, replace only with the value originally used.

## COILS

MMH: mH, UH:  $\mu$ H

| REF. NO.  | PART NO.     | DESCRIPTION          | REMARK  | REF. NO.    | PART NO.     | DESCRIPTION                   | REMARK  |
|---|--------------|----------------------|---------|-------------|--------------|-------------------------------|---------|
| *A-1195-062-A P BOARD, COMPLETE (KV-32TS36/32TS46<br>/27TS36) |              |                      |         | C3249       | 1-163-117-00 | CERAMIC CHIP 100PF            | 5% 50V  |
| <CAPACITOR>   |              |                      |         | C3250       | 1-163-113-00 | CERAMIC CHIP 68PF             | 5% 50V  |
| C3201   | 1-124-477-11 | ELECT 47MF           | 20% 16V | C3251       | 1-164-232-11 | CERAMIC CHIP 0.01MF           | 10% 50V |
| C3203   | 1-164-004-11 | CERAMIC CHIP 0.1MF   | 10% 25V | C3252       | 1-163-103-00 | CERAMIC CHIP 27PF             | 5% 50V  |
| C3204   | 1-124-907-11 | ELECT 10MF           | 20% 50V | C3253       | 1-163-101-00 | CERAMIC CHIP 22PF             | 5% 50V  |
| C3205   | 1-124-907-11 | ELECT 10MF           | 20% 50V | C3254       | 1-163-141-00 | CERAMIC CHIP 0.001MF          | 5% 50V  |
| C3206   | 1-124-907-11 | ELECT 10MF           | 20% 50V | C3255       | 1-163-101-00 | CERAMIC CHIP 22PF             | 5% 50V  |
| C3207   | 1-163-117-00 | CERAMIC CHIP 100PF   | 5% 50V  | C3256       | 1-164-232-11 | CERAMIC CHIP 0.01MF           | 10% 50V |
| C3208   | 1-163-117-00 | CERAMIC CHIP 100PF   | 5% 50V  | C3257       | 1-163-117-00 | CERAMIC CHIP 100PF            | 5% 50V  |
| C3209   | 1-123-382-00 | ELECT 3.3MF          | 20% 50V | C3258       | 1-163-113-00 | CERAMIC CHIP 68PF             | 5% 50V  |
| C3210   | 1-124-477-11 | ELECT 47MF           | 20% 16V | C3259       | 1-163-111-00 | CERAMIC CHIP 56PF             | 5% 50V  |
| C3212   | 1-123-382-00 | ELECT 3.3MF          | 20% 50V | C3260       | 1-163-119-00 | CERAMIC CHIP 120PF            | 5% 50V  |
| C3213   | 1-164-346-11 | CERAMIC CHIP 1MF     | 16V     | C3261       | 1-163-141-00 | CERAMIC CHIP 0.001MF          | 5% 50V  |
| C3214   | 1-164-346-11 | CERAMIC CHIP 1MF     | 16V     | C3263       | 1-163-141-00 | CERAMIC CHIP 0.001MF          | 5% 50V  |
| C3215   | 1-164-346-11 | CERAMIC CHIP 1MF     | 16V     | C3264       | 1-165-319-11 | CERAMIC CHIP 0.1MF            | 5% 50V  |
| C3216   | 1-164-005-11 | CERAMIC CHIP 0.47MF  | 25V     | C3265       | 1-163-141-00 | CERAMIC CHIP 0.001MF          | 5% 50V  |
| C3217   | 1-164-346-11 | CERAMIC CHIP 1MF     | 16V     | C3266       | 1-163-141-00 | CERAMIC CHIP 0.001MF          | 5% 50V  |
| C3218   | 1-164-346-11 | CERAMIC CHIP 1MF     | 16V     | C3267       | 1-163-141-00 | CERAMIC CHIP 0.001MF          | 5% 50V  |
| C3219   | 1-126-103-11 | ELECT 470MF          | 20% 16V | C3268       | 1-163-141-00 | CERAMIC CHIP 0.001MF          | 5% 50V  |
| C3220   | 1-164-346-11 | CERAMIC CHIP 1MF     | 16V     | C3269       | 1-163-141-00 | CERAMIC CHIP 0.001MF          | 5% 50V  |
| C3221   | 1-164-346-11 | CERAMIC CHIP 1MF     | 16V     | C3270       | 1-165-319-11 | CERAMIC CHIP 0.1MF            | 5% 50V  |
| C3222   | 1-164-336-11 | CERAMIC CHIP 0.33MF  | 25V     | C3271       | 1-165-319-11 | CERAMIC CHIP 0.1MF            | 5% 50V  |
| C3223   | 1-164-336-11 | CERAMIC CHIP 0.33MF  | 25V     | C3272       | 1-165-319-11 | CERAMIC CHIP 0.1MF            | 5% 50V  |
| C3224   | 1-164-222-11 | CERAMIC CHIP 0.22MF  | 25V     | C3273       | 1-163-109-00 | CERAMIC CHIP 47PF             | 5% 50V  |
| C3225   | 1-164-222-11 | CERAMIC CHIP 0.22MF  | 25V     | C3274       | 1-163-101-00 | CERAMIC CHIP 22PF             | 5% 50V  |
| C3226   | 1-164-005-11 | CERAMIC CHIP 0.47MF  | 25V     | C3275       | 1-163-101-00 | CERAMIC CHIP 22PF             | 5% 50V  |
| C3227   | 1-164-346-11 | CERAMIC CHIP 1MF     | 16V     | C3276       | 1-163-111-00 | CERAMIC CHIP 56PF             | 5% 50V  |
| C3228   | 1-163-117-00 | CERAMIC CHIP 100PF   | 5% 50V  | C3277       | 1-163-101-00 | CERAMIC CHIP 22PF             | 5% 50V  |
| C3229   | 1-163-093-00 | CERAMIC CHIP 10PF    | 5% 50V  | C3278       | 1-163-101-00 | CERAMIC CHIP 22PF             | 5% 50V  |
| C3230   | 1-163-141-00 | CERAMIC CHIP 0.001MF | 5% 50V  | C3279       | 1-163-141-00 | CERAMIC CHIP 0.001MF          | 5% 50V  |
| C3231   | 1-163-125-00 | CERAMIC CHIP 220PF   | 5% 50V  | C3280       | 1-124-907-11 | ELECT 10MF                    | 20% 50V |
| C3232   | 1-163-117-00 | CERAMIC CHIP 100PF   | 5% 50V  | C3282       | 1-164-346-11 | CERAMIC CHIP 1MF              | 16V     |
| C3233   | 1-164-232-11 | CERAMIC CHIP 0.01MF  | 10% 50V | <CONNECTOR> |              |                               |         |
| C3234   | 1-164-232-11 | CERAMIC CHIP 0.01MF  | 10% 50V | CN150       | 1-573-297-11 | CONNECTOR, BOARD TO BOARD 18P |         |
| C3235   | 1-164-232-11 | CERAMIC CHIP 0.01MF  | 10% 50V | <DIODE>     |              |                               |         |
| C3236   | 1-164-232-11 | CERAMIC CHIP 0.01MF  | 10% 50V | D3202       | 8-719-031-68 | DIODE HVU359-TRU              |         |
| C3237   | 1-164-232-11 | CERAMIC CHIP 0.01MF  | 10% 50V | D3203       | 8-719-404-46 | DIODE MA110                   |         |
| C3238   | 1-163-101-00 | CERAMIC CHIP 22PF    | 5% 50V  | D3208       | 8-719-110-17 | DIODE RD10ESB2                |         |
| C3239   | 1-163-141-00 | CERAMIC CHIP 0.001MF | 5% 50V  | D3209       | 8-719-110-17 | DIODE RD10ESB2                |         |
| C3240   | 1-163-101-00 | CERAMIC CHIP 22PF    | 5% 50V  | <IC>        |              |                               |         |
| C3241   | 1-163-103-00 | CERAMIC CHIP 27PF    | 5% 50V  | IC3200      | 8-759-517-74 | IC MB81461-12-PSZ-G-BF2       |         |
| C3242   | 1-164-232-11 | CERAMIC CHIP 0.01MF  | 10% 50V | IC3201      | 8-759-093-29 | IC MB86144                    |         |
| C3243   | 1-163-117-00 | CERAMIC CHIP 100PF   | 5% 50V  | IC3202      | 8-759-093-28 | IC MB40176PF-EF               |         |
| C3244   | 1-163-113-00 | CERAMIC CHIP 68PF    | 5% 50V  | IC3203      | 8-759-093-28 | IC MB40176PF-EF               |         |
| C3245   | 1-164-232-11 | CERAMIC CHIP 0.01MF  | 10% 50V | IC3204      | 8-759-093-26 | IC MB3512PF-EF                |         |
| C3246   | 1-164-232-11 | CERAMIC CHIP 0.01MF  | 10% 50V |             |              |                               |         |
| C3247   | 1-163-033-00 | CERAMIC CHIP 0.022MF | 50V     |             |              |                               |         |
| C3248   | 1-163-125-00 | CERAMIC CHIP 220PF   | 5% 50V  |             |              |                               |         |

KV-27TS29/27TS32/27TS36

RM-Y118 RM-Y117 RM-Y111

KV-32TS36/32TS46

RM-Y118 RM-Y111  
SA-W200

P A

| REF.NO. | PART NO.     | DESCRIPTION                 | REMARK | REF.NO.       | PART NO.                                    | DESCRIPTION                               | REMARK |
|---------|--------------|-----------------------------|--------|---------------|---|---|--------|
| IC3205  | 8-759-243-19 | IC TC7SU04F                 |        | R3238         | 1-216-049-00                                | METAL GLAZE 1K 5% 1/10W                   |        |
|         | <COIL>       |                             |        | R3239         | 1-216-043-00                                | METAL GLAZE 560 5% 1/10W                  |        |
| L3201   | 1-410-470-11 | INDUCTOR 10UH               |        | R3241         | 1-216-057-00                                | METAL GLAZE 2.2K 5% 1/10W                 |        |
| L3202   | 1-408-424-00 | INDUCTOR 180UH              |        | R3242         | 1-216-049-00                                | METAL GLAZE 1K 5% 1/10W                   |        |
| L3203   | 1-408-424-00 | INDUCTOR 180UH              |        | R3243         | 1-216-025-00                                | METAL GLAZE 100 5% 1/10W                  |        |
| L3204   | 1-410-476-11 | INDUCTOR 33UH               |        | R3244         | 1-216-025-00                                | METAL GLAZE 100 5% 1/10W                  |        |
| L3205   | 1-410-470-11 | INDUCTOR 10UH               |        | R3245         | 1-216-025-00                                | METAL GLAZE 100 5% 1/10W                  |        |
| L3206   | 1-410-387-11 | INDUCTOR 33UH               |        | R3246         | 1-216-069-00                                | METAL GLAZE 6.8K 5% 1/10W                 |        |
| L3207   | 1-410-387-11 | INDUCTOR 33UH               |        | R3247         | 1-216-063-00                                | METAL GLAZE 3.9K 5% 1/10W                 |        |
| L3208   | 1-410-387-11 | INDUCTOR 33UH               |        | R3248         | 1-216-295-00                                | METAL GLAZE 0 5% 1/10W                    |        |
| L3209   | 1-410-387-11 | INDUCTOR 33UH               |        | R3249         | 1-216-057-00                                | METAL GLAZE 2.2K 5% 1/10W                 |        |
|         | <TRANSISTOR> |                             |        | R3250         | 1-216-043-00                                | METAL GLAZE 560 5% 1/10W                  |        |
| Q3201   | 8-729-422-36 | TRANSISTOR 2SB709A-Q        |        | R3251         | 1-216-049-00                                | METAL GLAZE 1K 5% 1/10W                   |        |
| Q3202   | 8-729-422-27 | TRANSISTOR 2SD601A-Q        |        | R3252         | 1-216-043-00                                | METAL GLAZE 560 5% 1/10W                  |        |
| Q3203   | 8-729-422-36 | TRANSISTOR 2SB709A-Q        |        | R3253         | 1-216-065-00                                | METAL GLAZE 4.7K 5% 1/10W                 |        |
| Q3204   | 8-729-422-36 | TRANSISTOR 2SB709A-Q        |        | R3254         | 1-216-043-00                                | METAL GLAZE 560 5% 1/10W                  |        |
| Q3206   | 8-729-422-27 | TRANSISTOR 2SD601A-Q        |        | R3255         | 1-216-041-00                                | METAL GLAZE 470 5% 1/10W                  |        |
| Q3207   | 8-729-422-36 | TRANSISTOR 2SB709A-Q        |        | R3256         | 1-216-043-00                                | METAL GLAZE 560 5% 1/10W                  |        |
| Q3208   | 8-729-422-27 | TRANSISTOR 2SD601A-Q        |        | R3259         | 1-216-298-00                                | METAL GLAZE 2.2 5% 1/10W                  |        |
| Q3209   | 8-729-422-36 | TRANSISTOR 2SB709A-Q        |        | R3260         | 1-216-073-00                                | METAL GLAZE 10K 5% 1/10W                  |        |
| Q3210   | 8-729-422-36 | TRANSISTOR 2SB709A-Q        |        | R3263         | 1-216-025-00                                | METAL GLAZE 100 5% 1/10W                  |        |
|         | <RESISTOR>   |                             |        | R3264         | 1-216-025-00                                | METAL GLAZE 100 5% 1/10W                  |        |
| R3201   | 1-216-097-00 | METAL GLAZE 100K 5% 1/10W   |        | R3265         | 1-216-049-00                                | METAL GLAZE 1K 5% 1/10W                   |        |
| R3202   | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W    |        | R3266         | 1-216-057-00                                | METAL GLAZE 2.2K 5% 1/10W                 |        |
| R3203   | 1-216-025-00 | METAL GLAZE 100 5% 1/10W    |        | R3267         | 1-216-055-00                                | METAL GLAZE 1.8K 5% 1/10W                 |        |
| R3204   | 1-216-025-00 | METAL GLAZE 100 5% 1/10W    |        | R3268         | 1-216-053-00                                | METAL GLAZE 1.5K 5% 1/10W                 |        |
| R3205   | 1-216-121-00 | METAL GLAZE 1M 5% 1/10W     |        | R3269         | 1-216-057-00                                | METAL GLAZE 2.2K 5% 1/10W                 |        |
| R3207   | 1-216-295-00 | METAL GLAZE 0 5% 1/10W      |        | R3270         | 1-216-657-11                                | METAL CHIP 1.8K 0.50% 1/10W               |        |
| R3208   | 1-216-097-00 | METAL GLAZE 100K 5% 1/10W   |        | R3271         | 1-216-655-11                                | METAL CHIP 1.5K 0.50% 1/10W               |        |
| R3209   | 1-216-079-00 | METAL GLAZE 18K 5% 1/10W    |        | R3273         | 1-216-073-00                                | METAL GLAZE 10K 5% 1/10W                  |        |
| R3210   | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W    |        | R3274         | 1-216-049-00                                | METAL GLAZE 1K 5% 1/10W                   |        |
| R3211   | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W    |        | R3275         | 1-216-049-00                                | METAL GLAZE 1K 5% 1/10W                   |        |
| R3212   | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W    |        | R3276         | 1-216-049-00                                | METAL GLAZE 1K 5% 1/10W                   |        |
| R3213   | 1-216-075-00 | METAL GLAZE 12K 5% 1/10W    |        | R3277         | 1-216-298-00                                | METAL GLAZE 2.2 5% 1/10W                  |        |
| R3214   | 1-216-121-00 | METAL GLAZE 1M 5% 1/10W     |        |               | <CRYSTAL>                                   |   |        |
| R3215   | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W   |        | X3201         | 1-567-878-11                                | VIBRATOR, CRYSTAL                         |        |
| R3216   | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W   |        | X3202         | 1-567-878-11                                | VIBRATOR, CRYSTAL                         |        |
| R3217   | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W   |        |               | *****                                       |   |        |
| R3218   | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W     |        | *A-1297-065-A | A BOARD, COMPLETE (KV-32TS36/27TS32/27TS29) |   |        |
| R3219   | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W     |        |               | *****                                       |   |        |
| R3220   | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W     |        | *A-1297-112-A | A BOARD, COMPLETE (KV-32TS46)               |   |        |
| R3221   | 1-216-655-11 | METAL CHIP 1.5K 0.50% 1/10W |        |               | *****                                       |   |        |
| R3222   | 1-216-655-11 | METAL CHIP 1.5K 0.50% 1/10W |        |               | <CAPACITOR>                                 |   |        |
| R3223   | 1-216-025-00 | METAL GLAZE 100 5% 1/10W    |        | C171          | 1-124-907-11                                | ELECT 10MF 20% 50V (KV-32TS46)            |        |
| R3224   | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W     |        | C173          | 1-164-232-11                                | CERAMIC CHIP 0.01MF 10% 50V               |        |
| R3225   | 1-216-025-00 | METAL GLAZE 100 5% 1/10W    |        | C174          | 1-164-232-11                                | CERAMIC CHIP 0.01MF 10% 50V               |        |
| R3226   | 1-216-085-00 | METAL GLAZE 33K 5% 1/10W    |        | C175          | 1-126-103-11                                | ELECT 470MF 20% 16V                       |        |
| R3227   | 1-216-647-11 | METAL CHIP 680 0.50% 1/10W  |        | C176          | 1-126-103-11                                | ELECT 470MF 20% 16V                       |        |
| R3228   | 1-216-045-00 | METAL GLAZE 680 5% 1/10W    |        | C177          | 1-124-907-11                                | ELECT 10MF 20% 50V                        |        |
| R3229   | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W    |        | C178          | 1-126-101-11                                | ELECT 100MF 20% 16V                       |        |
| R3230   | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W    |        | C179          | 1-124-916-11                                | ELECT 22MF 20% 25V                        |        |
| R3231   | 1-216-001-00 | METAL GLAZE 10 5% 1/10W     |        | C180          | 1-124-916-11                                | ELECT 22MF 20% 25V (KV-32TS46)            |        |
| R3232   | 1-216-083-00 | METAL GLAZE 27K 5% 1/10W    |        | C181          | 1-164-161-11                                | CERAMIC CHIP 0.0022MF 10% 50V             |        |
| R3233   | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W     |        | C182          | 1-164-161-11                                | CERAMIC CHIP 0.0022MF 10% 50V (KV-32TS46) |        |
| R3234   | 1-216-651-11 | METAL CHIP 1K 0.50% 1/10W   |        | C184          | 1-124-907-11                                | ELECT 10MF 20% 50V (KV-32TS46)            |        |
| R3235   | 1-216-043-00 | METAL GLAZE 560 5% 1/10W    |        |               |   |   |        |
| R3236   | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W   |        |               |   |   |        |
| R3237   | 1-216-043-00 | METAL GLAZE 560 5% 1/10W    |        |               |   |   |        |

## V-27TS29/27TS32/27TS36

RM-Y116 RM-Y117 RM-Y118

## V-32TS36/32TS46

RM-Y118 RM-Y118  
SA-W200**A M**

Les composants identifiés par une  
trame et une marque **Δ** sont  
critiques pour la sécurité.  
Ne les remplacer que par une pièce  
portant le numéro spécifié.

The components identified by  
shading and mark **Δ** are critical  
for safety.  
Replace only with part number  
specified.

| REF.NO.      | PART NO.      | DESCRIPTION                      | REMARK      | REF.NO.       | PART NO.                                     | DESCRIPTION                | REMARK      |
|--------------|---------------|----------------------------------|-------------|---------------|--|----------------------------|-------------|
| <CONNECTOR>  |               |                                  |             | *****         |  |                            |             |
| CN103        | *1-564-519-11 | PLUG, CONNECTOR 4P               |             | *A-1306-427-A | M BOARD, COMPLETE                            |                            |             |
| CN151        | *1-573-979-11 | CONNECTOR, BOARD TO BOARD 11P    |             |               | *****  |                            |             |
| CN152        | 1-750-394-11  | PIN, CONNECTOR (STAKING) 32P     |             |               | (KV-32TS36(US)/27TS36(US)/27TS32/27TS29(US)) |                            |             |
| CN164        | *1-564-505-11 | PLUG, CONNECTOR 2P               |             | *A-1306-432-A | M BOARD, COMPLETE                            |                            |             |
| CN165        | *1-564-505-11 | PLUG, CONNECTOR 2P               |             |               | *****  |                            |             |
|              |               |                                  |             |               | (KV-32TS36(CND)/27TS36(CND)/27TS29(CND))     |                            |             |
| <DIODE>      |               |                                  |             | *A-1306-433-A | M BOARD, COMPLETE (KV-32TS46(CND))           |                            |             |
| D170         | 8-719-110-78  | DIODE RD33ESB2                   |             |               | *****  |                            |             |
| D175         | 8-719-110-76  | DIODE RD33ESB1                   | (KV-32TS46) | *A-1306-434-A | M BOARD, COMPLETE (KV-32TS46(US))            |                            |             |
|              |               |                                  |             |               | *****  |                            |             |
| <IC>         |               |                                  |             | <CAPACITOR>   |  |                            |             |
| IC172        | 8-759-932-67  | IC BU4053BF                      | (KV-32TS46) | C002          | 1-163-809-11                                 | CERAMIC CHIP 0.047MF       | 10% 25V     |
| <COIL>       |               |                                  |             | C003          | 1-163-001-11                                 | CERAMIC CHIP 220PF         | 10% 50V     |
| L170         | 1-408-408-00  | INDUCTOR 8.2UH                   |             | C005          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| L171         | 1-408-408-00  | INDUCTOR 8.2UH                   |             | C006          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| L172         | 1-408-408-00  | INDUCTOR 8.2UH                   |             | C007          | 1-124-903-11                                 | ELECT 1MF                  | 20% 50V     |
| L173         | 1-408-408-00  | INDUCTOR 8.2UH                   | (KV-32TS46) | C008          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| <TRANSISTOR> |               |                                  |             | C009          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| Q172         | 8-729-422-36  | TRANSISTOR 2SB709A-Q             | (KV-32TS46) | C010          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| Q173         | 8-729-422-36  | TRANSISTOR 2SB709A-Q             | (KV-32TS46) | C012          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
|              |               |                                  |             | C013          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| <RESISTOR>   |               |                                  |             | C014          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| R170         | 1-216-025-00  | METAL GLAZE 100 5% 1/10W         |             | C015          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
|              |               | (KV-32TS36/27TS36/27TS32/27TS29) |             | C016          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| R173         | 1-216-295-00  | METAL GLAZE 0 5% 1/10W           |             | C017          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
|              |               | (KV-32TS46)                      |             | C018          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| R174         | 1-216-689-11  | METAL GLAZE 39K 5% 1/10W         |             | C019          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| R175         | 1-215-900-11  | METAL OXIDE 22K 5% 2W F          |             | C021          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
|              |               | (KV-32TS46)                      |             | C022          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| R176         | 1-216-295-00  | METAL GLAZE 0 5% 1/10W           |             | C023          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
|              |               | (KV-32TS36/27TS36/27TS32/27TS29) |             | C025          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| R177         | 1-215-900-11  | METAL OXIDE 22K 5% 2W F          |             | C028          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
|              |               | (KV-32TS46)                      |             | C029          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| R179         | 1-216-065-00  | METAL GLAZE 4.7K 5% 1/10W        |             | C034          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| R181         | 1-216-025-00  | METAL GLAZE 100 5% 1/10W         |             |               |  |                            | (KV-32TS46) |
|              |               | (KV-32TS46)                      |             | C035          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| R185         | 1-216-025-00  | METAL GLAZE 100 5% 1/10W         |             |               |  |                            | (KV-32TS46) |
|              |               | (KV-32TS46)                      |             | C041          | 1-163-009-11                                 | CERAMIC CHIP 0.001MF       | 10% 50V     |
| R187         | 1-216-083-00  | METAL GLAZE 27K 5% 1/10W         |             | C043          | 1-163-159-00                                 | CERAMIC CHIP 12PF          | 2% 50V      |
| R188         | 1-216-689-11  | METAL GLAZE 39K 5% 1/10W         |             | C045          | 1-124-119-00                                 | ELECT 330MF                | 20% 16V     |
|              |               | (KV-32TS46)                      |             | C047          | 1-104-896-91                                 | CERAMIC CHIP 24PF          | 2% 50V      |
| R189         | 1-216-083-00  | METAL GLAZE 27K 5% 1/10W         |             | C049          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
|              |               | (KV-32TS46)                      |             | C050          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| R190         | 1-216-065-00  | METAL GLAZE 4.7K 5% 1/10W        |             | C051          | 1-163-031-11                                 | CERAMIC CHIP 0.01MF        | 5% 50V      |
|              |               | (KV-32TS46)                      |             | C052          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| R191         | 1-216-065-00  | METAL GLAZE 4.7K 5% 1/10W        |             | C053          | 1-163-121-00                                 | CERAMIC CHIP 150PF         | 5% 50V      |
|              |               | (KV-32TS46)                      |             | C054          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| R193         | 1-216-037-00  | METAL GLAZE 330 5% 1/10W         |             | C055          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
|              |               | (KV-32TS46)                      |             | C056          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| R196         | 1-216-037-00  | METAL GLAZE 330 5% 1/10W         |             | C057          | 1-163-017-00                                 | CERAMIC CHIP 0.0047MF      | 10% 50V     |
|              |               | (KV-32TS46)                      |             | C058          | 1-163-037-11                                 | CERAMIC CHIP 0.022MF       | 10% 25V     |
|              |               |                                  |             | C059          | 1-163-125-00                                 | CERAMIC CHIP 220PF         | 5% 50V      |
| <TUNER>      |               |                                  |             | C060          | 1-124-903-11                                 | ELECT 1MF                  | 20% 50V     |
| TU101A       | 8-598-039-00  | TUNER BTF-WA401                  |             | C061          | 1-163-117-00                                 | CERAMIC CHIP 100PF         | 5% 50V      |
| TU102A       | 8-598-047-00  | TUNER BTF-WA401                  | (KV-32TS46) | C062          | 1-124-907-11                                 | ELECT 10MF                 | 20% 50V     |
|              |               |                                  |             | C150          | 1-136-165-00                                 | FILM 0.1MF                 | 5% 50V      |
|              |               |                                  |             |               |  | (KV-32TS46(US)/32TS36(US)) |             |
|              |               |                                  |             | C151          | 1-136-175-00                                 | FILM 0.068MF               | 5% 50V      |
|              |               |                                  |             |               |  | (KV-32TS46(US)/32TS36(US)) |             |

M

| REF.NO. | PART NO.     | DESCRIPTION  | REMARK  | REF.NO.           | PART NO.      | DESCRIPTION                            | REMARK                     |
|---------|--------------|--------------|---|-------------------|---------------|--|----------------------------|
| C152    | 1-124-907-11 | ELECT        | 10MF 20% 50V<br>(KV-32TS46(US)/32TS36(US))    | <CONNECTOR>       |               |  |                            |
| C153    | 1-137-367-11 | FILM         | 0.0033MF 5% 50V<br>(KV-32TS46(US)/32TS36(US)) | CN129             | *1-564-523-11 | PLUG, CONNECTOR 8P                     |                            |
| C154    | 1-163-038-00 | CERAMIC CHIP | 0.1MF 25V<br>(KV-32TS46(US)/32TS36(US))       | CN130             | 1-573-301-11  | CONNECTOR, BOARD TO BOARD 20P          |                            |
| C155    | 1-124-907-11 | ELECT        | 10MF 20% 50V<br>(KV-32TS46(US)/32TS36(US))    | CN131             | *1-691-632-11 | CONNECTOR, BOARD TO BOARD 15P          |                            |
| C156    | 1-163-135-00 | CERAMIC CHIP | 560PF 5% 50V<br>(KV-32TS46(US)/32TS36(US))    | CN134             | *1-564-521-11 | PLUG, CONNECTOR 6P                     | (KV-32TS46)                |
| C157    | 1-163-038-00 | CERAMIC CHIP | 0.1MF 25V<br>(KV-32TS46(US)/32TS36(US))       | CN137             | 1-750-394-11  | PIN, CONNECTOR (STAKING) 32P           |                            |
| C158    | 1-124-903-11 | ELECT        | 1MF 20% 50V<br>(KV-32TS46(US)/32TS36(US))     | CN138             | *1-564-511-31 | PLUG, CONNECTOR 8P                     |                            |
| C160    | 1-124-903-11 | ELECT        | 1MF 20% 50V                                   | CN168             | *1-564-505-11 | PLUG, CONNECTOR 2P                     |                            |
| C201    | 1-163-017-00 | CERAMIC CHIP | 0.0047MF 10% 50V                              | <DIODE>           |               |  |                            |
| C202    | 1-163-125-00 | CERAMIC CHIP | 220PF 5% 50V                                  | D001              | 8-719-404-46  | DIODE MA110                            |                            |
| C203    | 1-163-989-11 | CERAMIC CHIP | 0.033MF 10% 25V                               | D002              | 8-719-404-46  | DIODE MA110                            | (KV-32TS46(US))            |
| C204    | 1-126-101-11 | ELECT        | 100MF 20% 16V                                 | D004              | 8-719-404-46  | DIODE MA110                            |                            |
| C205    | 1-163-125-00 | CERAMIC CHIP | 220PF 5% 50V                                  | D005              | 8-713-300-57  | DIODE 1T33                             |                            |
| C211    | 1-163-989-11 | CERAMIC CHIP | 0.033MF 10% 25V                               | D006              | 8-719-110-17  | DIODE RD10ESB2                         |                            |
| C212    | 1-124-902-00 | ELECT        | 0.47MF 20% 50V                                | D007              | 8-719-110-17  | DIODE RD10ESB2                         |                            |
| C213    | 1-124-902-00 | ELECT        | 0.47MF 20% 50V                                | D008              | 8-719-110-17  | DIODE RD10ESB2                         |                            |
| C214    | 1-163-017-00 | CERAMIC CHIP | 0.0047MF 10% 50V                              | D009              | 8-719-110-17  | DIODE RD10ESB2                         |                            |
| C216    | 1-124-478-11 | ELECT        | 100MF 20% 25V                                 | D150              | 8-719-404-46  | DIODE MA110 (KV-32TS46(US)/32TS36(US)) |                            |
| C301    | 1-163-117-00 | CERAMIC CHIP | 100PF 5% 50V                                  | D201              | 8-719-404-46  | DIODE MA110                            |                            |
| C305    | 1-124-907-11 | ELECT        | 10MF 20% 50V                                  | D202              | 8-719-404-46  | DIODE MA110                            |                            |
| C306    | 1-124-902-00 | ELECT        | 0.47MF 20% 50V                                | D205              | 8-719-110-17  | DIODE RD10ESB2                         |                            |
| C307    | 1-163-125-00 | CERAMIC CHIP | 220PF 5% 50V                                  | D206              | 8-719-110-17  | DIODE RD10ESB2                         |                            |
| C308    | 1-163-099-00 | CERAMIC CHIP | 18PF 5% 50V                                   | D301              | 8-719-110-17  | DIODE RD10ESB2                         |                            |
| C310    | 1-124-916-11 | ELECT        | 22MF 20% 25V                                  | D304              | 8-719-110-17  | DIODE RD10ESB2                         |                            |
| C311    | 1-124-903-11 | ELECT        | 1MF 20% 50V                                   | <IC>              |               |  |                            |
| C313    | 1-163-003-11 | CERAMIC CHIP | 330PF 10% 50V                                 | IC101             | 8-752-841-16  | IC CXP80424-SV4397                     |                            |
| C315    | 1-124-907-11 | ELECT        | 10MF 20% 50V<br>(KV-32TS46(US))               | IC102             | 8-759-057-38  | IC 24C02A1/P                           |                            |
| C316    | 1-124-907-11 | ELECT        | 10MF 20% 50V<br>(KV-32TS46(US))               | IC150             | 8-759-084-09  | IC Z8612812PSC                         | (KV-32TS46(US)/32TS36(US)) |
| C317    | 1-124-907-11 | ELECT        | 10MF 20% 50V<br>(KV-32TS46(US))               | IC201             | 8-759-090-21  | IC TDA8424                             |                            |
| C318    | 1-136-165-00 | FILM         | 0.1MF 5% 50V                                  | IC202             | 8-759-983-69  | IC UPC358PS                            |                            |
| C319    | 1-136-165-00 | FILM         | 0.1MF 5% 50V                                  | IC301             | 8-752-059-67  | IC CXA1465AS                           |                            |
| C320    | 1-136-165-00 | FILM         | 0.1MF 5% 50V                                  | <JUMPER RESISTOR> |               |  |                            |
| C321    | 1-124-360-00 | ELECT        | 1000MF 20% 16V                                | JR200             | 1-216-295-00  | METAL GLAZE 0 5% 1/10W                 |                            |
| C322    | 1-136-153-00 | FILM         | 0.01MF 5% 50V                                 | <COIL>            |               |  |                            |
| C323    | 1-126-176-11 | ELECT        | 220MF 20% 10V                                 | L001              | 1-410-470-11  | INDUCTOR 10UH                          |                            |
| C324    | 1-163-003-11 | CERAMIC CHIP | 330PF 10% 50V                                 | L002              | 1-408-414-00  | INDUCTOR 27UH                          |                            |
| C325    | 1-163-037-11 | CERAMIC CHIP | 0.022MF 10% 25V                               | L150              | 1-410-470-11  | INDUCTOR 10UH                          | (KV-32TS46(US)/32TS36(US)) |
| C326    | 1-136-169-00 | FILM         | 0.22MF 5% 50V                                 | <TRANSISTOR>      |               |  |                            |
| C327    | 1-136-169-00 | FILM         | 0.22MF 5% 50V                                 | Q001              | 8-729-422-36  | TRANSISTOR 2SB709A-Q                   |                            |
| C328    | 1-124-902-00 | ELECT        | 0.47MF 20% 50V                                | Q002              | 8-729-422-36  | TRANSISTOR 2SB709A-Q                   |                            |
| C329    | 1-124-903-11 | ELECT        | 1MF 20% 50V                                   | Q004              | 8-729-422-36  | TRANSISTOR 2SB709A-Q                   |                            |
| C330    | 1-124-907-11 | ELECT        | 10MF 20% 50V                                  | Q005              | 8-729-422-27  | TRANSISTOR 2SD601A-Q                   |                            |
| C331    | 1-124-907-11 | ELECT        | 10MF 20% 50V                                  | Q151              | 8-729-422-27  | TRANSISTOR 2SD601A-Q                   | (KV-32TS46(US)/32TS36(US)) |
| C332    | 1-164-489-11 | CERAMIC CHIP | 0.22MF 10% 16V                                | Q201              | 8-729-422-27  | TRANSISTOR 2SD601A-Q                   |                            |
| C333    | 1-163-011-11 | CERAMIC CHIP | 0.0015MF 10% 50V                              | Q301              | 8-729-422-36  | TRANSISTOR 2SB709A-Q                   |                            |
| C334    | 1-124-902-00 | ELECT        | 0.47MF 20% 50V                                | Q302              | 8-729-422-36  | TRANSISTOR 2SB709A-Q                   |                            |
| C335    | 1-163-001-11 | CERAMIC CHIP | 220PF 10% 50V                                 | Q307              | 8-729-422-27  | TRANSISTOR 2SD601A-Q                   |                            |
| C336    | 1-124-903-11 | ELECT        | 1MF 20% 50V                                   | Q308              | 8-729-422-27  | TRANSISTOR 2SD601A-Q                   |                            |
| C337    | 1-124-902-00 | ELECT        | 0.47MF 20% 50V                                |                   |               |  |                            |
| C338    | 1-136-153-00 | FILM         | 0.01MF 5% 50V                                 |                   |               |  |                            |
| C340    | 1-124-903-11 | ELECT        | 1MF 20% 50V                                   |                   |               |  |                            |
| C341    | 1-163-005-11 | CERAMIC CHIP | 470PF 10% 50V                                 |                   |               |  |                            |
| C342    | 1-137-414-91 | FILM         | 0.0047MF 10% 100V                             |                   |               |  |                            |

V-27TS29/27TS32/27TS36

RM-Y116 RM-Y117 RM-Y118

V-32TS36/32TS46

RM-Y118 RM-Y118  
SA-W200

M

| REF. NO.   | PART NO.     | DESCRIPTION                             | REMARK | REF. NO. | PART NO.     | DESCRIPTION   | REMARK |
|------------|--------------|---|--------|----------|--------------|---|--------|
| <RESISTOR> |              |   |        | R074     | 1-216-295-00 | METAL GLAZE 0 5% 1/10W                                  |        |
| R002       | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                |        | R075     | 1-216-295-00 | METAL GLAZE 0 5% 1/10W                                  |        |
| R003       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R076     | 1-216-295-00 | METAL GLAZE 0 5% 1/10W                                  |        |
| R004       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R078     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                                |        |
| R005       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R079     | 1-216-295-00 | METAL GLAZE 0 5% 1/10W                                  |        |
| R006       | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W                 |        | R080     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                                |        |
| R007       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R082     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                                |        |
| R008       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R083     | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W                                |        |
| R009       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R086     | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W                                |        |
| R011       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R087     | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W                                 |        |
| R012       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R089     | 1-216-083-00 | METAL GLAZE 27K 5% 1/10W                                |        |
| R013       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R090     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                                |        |
| R016       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R091     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                                |        |
| R017       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R092     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                                |        |
| R018       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R093     | 1-216-295-00 | METAL GLAZE 0 5% 1/10W                                  |        |
| R019       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R150     | 1-216-097-00 | METAL GLAZE 100K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US)) |        |
| R020       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R151     | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US))   |        |
| R021       | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                |        | R152     | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US))   |        |
| R022       | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                |        | R153     | 1-216-069-00 | METAL GLAZE 6.8K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US)) |        |
| R023       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R154     | 1-216-041-00 | METAL GLAZE 470 5% 1/10W<br>(KV-32TS46(US)/32TS36(US))  |        |
| R025       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R155     | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US))   |        |
| R026       | 1-216-097-00 | METAL GLAZE 100K 5% 1/10W               |        | R156     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                                |        |
| R027       | 1-216-121-00 | METAL GLAZE 1M 5% 1/10W                 |        | R157     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US))  |        |
| R028       | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                |        | R158     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US))  |        |
| R029       | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W               |        | R159     | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US))   |        |
| R030       | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                |        | R160     | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US))   |        |
| R031       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R161     | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US))   |        |
| R032       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R162     | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US)) |        |
| R033       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R163     | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US)) |        |
| R034       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R164     | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US)) |        |
| R035       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R165     | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US)) |        |
| R036       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R166     | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US))   |        |
| R037       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R168     | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W<br>(KV-32TS46(US)/32TS36(US))   |        |
| R038       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R201     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                                |        |
| R039       | 1-216-295-00 | METAL GLAZE 0 5% 1/10W                  |        | R202     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                                |        |
| R040       | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W                 |        | R203     | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W                                |        |
| R041       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                |        | R204     | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W                                |        |
| R042       | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W                 |        | R205     | 1-216-295-00 | METAL GLAZE 0 5% 1/10W                                  |        |
| R043       | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W                 |        | R206     | 1-216-295-00 | METAL GLAZE 0 5% 1/10W                                  |        |
| R044       | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W               |        | R207     | 1-216-085-00 | METAL GLAZE 33K 5% 1/10W                                |        |
| R045       | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W               |        | R208     | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W                                |        |
| R046       | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W               |        | R209     | 1-216-085-00 | METAL GLAZE 33K 5% 1/10W                                |        |
| R047       | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W               |        | R210     | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W                                |        |
| R048       | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                |        | R211     | 1-216-033-00 | METAL GLAZE 220 5% 1/10W                                |        |
| R049       | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W                 |        | R212     | 1-216-025-00 | METAL GLAZE 100 5% 1/10W                                |        |
| R050       | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W                 |        | R213     | 1-216-025-00 | METAL GLAZE 100 5% 1/10W                                |        |
| R051       | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                |        | R218     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                                |        |
| R052       | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W               |        |          |              |   |        |
| R053       | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W                 |        |          |              |   |        |
| R054       | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W                 |        |          |              |   |        |
| R055       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W<br>(KV-32TS46) |        |          |              |   |        |
| R058       | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W                |        |          |              |   |        |
| R059       | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W               |        |          |              |   |        |
| R061       | 1-216-077-00 | METAL GLAZE 15K 5% 1/10W                |        |          |              |   |        |
| R062       | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W               |        |          |              |   |        |
| R063       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W<br>(KV-32TS46) |        |          |              |   |        |
| R064       | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W               |        |          |              |   |        |
| R065       | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W               |        |          |              |   |        |
| R066       | 1-216-025-00 | METAL GLAZE 100 5% 1/10W                |        |          |              |   |        |
| R067       | 1-216-025-00 | METAL GLAZE 100 5% 1/10W                |        |          |              |   |        |
| R069       | 1-216-033-00 | METAL GLAZE 220 5% 1/10W<br>(KV-32TS46) |        |          |              |   |        |





The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

E

D

| REF. NO.      | PART NO.                                     | DESCRIPTION   | REMARK            | REF. NO. | PART NO.     | DESCRIPTION   | REMARK            |
|---------------|--|---------------|-------------------|----------|--------------|---------------|-------------------|
| R1511         | 1-216-379-11                                 | METAL OXIDE   | 6.8 5% 2W F       | C524     | 1-102-212-00 | CERAMIC       | 820PF 10% 500V    |
| R1513         | 1-249-423-11                                 | CARBON        | 3.3K 5% 1/4W      | C525     | 1-124-902-00 | ELECT         | 0.47MF 20% 50V    |
| R1514         | 1-247-885-00                                 | CARBON        | 180K 5% 1/4W      | C526     | 1-106-395-00 | MYLAR         | 0.15MF 10% 200V   |
| R1515         | 1-215-905-11                                 | METAL OXIDE   | 10 5% 3W F        | C527     | 1-124-341-00 | ELECT         | 1MF 20% 200V      |
| R1519         | 1-249-417-11                                 | CARBON        | 1K 5% 1/4W        | C528     | 1-136-113-00 | FILM          | 2MF 5% 200V       |
| R1520         | 1-249-417-11                                 | CARBON        | 1K 5% 1/4W        | C529     | 1-137-410-11 | FILM          | 0.001MF 10% 100V  |
| R1522         | 1-249-417-11                                 | CARBON        | 1K 5% 1/4W F      | C530     | 1-104-770-11 | FILM          | 0.62MF 5% 200V    |
| R1527         | 1-249-417-11                                 | CARBON        | 1K 5% 1/4W        | C530     | 1-104-844-11 | CAP, FILM (S) | 0.62MF            |
| R1528         | 1-249-438-11                                 | CARBON        | 56K 5% 1/4W       | C531     | 1-124-477-11 | ELECT         | 47MF 20% 25V      |
| R1529         | 1-249-434-11                                 | CARBON        | 27K 5% 1/4W       | C532     | 1-136-165-00 | FILM          | 0.1MF 5% 50V      |
| R1530         | 1-249-432-11                                 | CARBON        | 18K 5% 1/4W       | C533     | 1-124-927-11 | ELECT         | 4.7MF 20% 50V     |
| R1533         | 1-249-427-11                                 | CARBON        | 6.8K 5% 1/4W      | C534     | 1-136-161-00 | FILM          | 0.047MF 5% 50V    |
| R1534         | 1-249-424-11                                 | CARBON        | 3.9K 5% 1/4W      | C535     | 1-124-911-11 | ELECT         | 220MF 20% 50V     |
| R1535         | 1-249-425-11                                 | CARBON        | 4.7K 5% 1/4W      | C536     | 1-137-421-91 | FILM          | 0.068MF 10% 100V  |
| R1536         | 1-215-857-11                                 | METAL OXIDE   | 10 5% 1W F        | C538     | 1-136-161-00 | FILM          | 0.047MF 5% 50V    |
| R1537         | 1-249-404-00                                 | CARBON        | 82 5% 1/4W        | C540     | 1-137-366-11 | FILM          | 0.0022MF 5% 50V   |
| R1538         | 1-216-379-11                                 | METAL OXIDE   | 6.8 5% 2W F       | C541     | 1-137-366-11 | FILM          | 0.0022MF 5% 50V   |
| R1541         | 1-249-441-11                                 | CARBON        | 100K 5% 1/4W      | C542     | 1-130-481-00 | FILM          | 0.0068MF 5% 50V   |
| R1543         | 1-249-414-11                                 | CARBON        | 560 5% 1/4W       | C545     | 1-124-927-11 | ELECT         | 4.7MF 20% 50V     |
| R1546         | 1-215-885-00                                 | METAL OXIDE   | 68 5% 2W F        | C547     | 1-164-079-11 | CERAMIC       | 330PF 10% 50V     |
| R1552         | 1-249-426-11                                 | CARBON        | 5.6K 5% 1/4W      | C548 Δ   | 1-162-116-91 | CERAMIC       | 680PF 10% 2KV     |
| R1554         | 1-249-393-11                                 | CARBON        | 10 5% 1/4W        | C550     | 1-106-387-00 | MYLAR         | 0.068MF 10% 200V  |
| R1556         | 1-249-438-11                                 | CARBON        | 56K 5% 1/4W       | C553     | 1-164-079-11 | CERAMIC       | 330PF 10% 50V     |
| R1559         | 1-249-429-11                                 | CARBON        | 10K 5% 1/4W       | C561     | 1-162-815-11 | CERAMIC       | 47PF 5% 500V      |
| R1564         | 1-249-435-11                                 | CARBON        | 33K 5% 1/4W       | C595     | 1-123-932-00 | ELECT         | 4.7MF 20% 160V    |
| R1568         | 1-247-891-00                                 | CARBON        | 330K 5% 1/4W      | C598     | 1-124-342-00 | ELECT         | 3.3MF 20% 160V    |
| R1569         | 1-249-413-11                                 | CARBON        | 470 5% 1/4W       | C600     | 1-124-907-11 | ELECT         | 10MF 20% 50V      |
| R1578         | 1-249-423-11                                 | CARBON        | 3.3K 5% 1/4W      | C601 Δ   | 1-136-311-51 | FILM          | 0.47MF 20% 125V   |
| R1582         | 1-249-411-11                                 | CARBON        | 330 5% 1/4W       | C602 Δ   | 1-136-311-51 | FILM          | 0.47MF 20% 125V   |
| R1583         | 1-249-421-11                                 | CARBON        | 2.2K 5% 1/4W      | C603 Δ   | 1-136-311-51 | FILM          | 0.47MF 20% 125V   |
| R1585         | 1-249-441-11                                 | CARBON        | 100K 5% 1/4W      | C604 Δ   | 1-162-578-81 | CERAMIC       | 0.0047MF 20% 400V |
| R1586         | 1-247-891-00                                 | CARBON        | 330K 5% 1/4W      | C607     | 1-104-757-11 | ELECT         | 470MF 20% 200V    |
| *****         |  |               |                   | C608     | 1-104-757-11 | ELECT         | 470MF 20% 200V    |
| *A-1346-112-A | D BOARD, COMPLETE (KV-27TS36/27TS32 /27TS29) |               |                   | C609     | 1-136-169-00 | FILM          | 0.22MF 5% 50V     |
| *A-1346-129-A | D BOARD, COMPLETE (KV-32TS46/32TS36)         |               |                   | C610     | 1-136-169-00 | FILM          | 0.22MF 5% 50V     |
| *****         |  |               |                   | C611     | 1-136-169-00 | FILM          | 0.22MF 5% 50V     |
| 1-533-223-11  | CLIP, FUSE                                   |               |                   | C612     | 1-136-169-00 | FILM          | 0.22MF 5% 50V     |
| 4-382-854-11  | SCREW (M3X10), P, SW (+)                     |               |                   | C613     | 1-164-625-11 | CERAMIC       | 680PF 10% 500V    |
| <CAPACITOR>   |  |               |                   | C614     | 1-164-625-11 | CERAMIC       | 680PF 10% 500V    |
| C501          | 1-124-557-11                                 | ELECT         | 1000MF 20% 25V    | C616     | 1-124-907-11 | ELECT         | 10MF 20% 50V      |
| C502          | 1-162-131-11                                 | CERAMIC       | 220PF 10% 2KV     | C617     | 1-124-618-11 | ELECT         | 2200MF 20% 35V    |
| C503          | 1-124-557-11                                 | ELECT         | 1000MF 20% 25V    | C618     | 1-124-557-11 | ELECT         | 1000MF 20% 25V    |
| C504          | 1-137-366-11                                 | FILM          | 0.0022MF 5% 50V   | C619     | 1-124-360-00 | ELECT         | 1000MF 20% 16V    |
| C505          | 1-124-916-11                                 | ELECT         | 22MF 20% 25V      | C620     | 1-164-644-11 | CERAMIC       | 330PF 10% 500V    |
| C506          | 1-124-929-11                                 | ELECT         | 22MF 20% 100V     | C621     | 1-126-356-11 | ELECT         | 220MF 20% 160V    |
| C507          | 1-124-046-00                                 | ELECT         | 10MF 20% 160V     | C623     | 1-162-117-00 | CERAMIC       | 100PF 10% 500V    |
| C509          | 1-124-916-11                                 | ELECT         | 22MF 20% 25V      | C624     | 1-136-487-81 | FILM          | 0.015MF 5% 50V    |
| C511          | 1-123-024-21                                 | ELECT         | 33MF 160V         | C625     | 1-129-744-91 | FILM          | 0.027MF 10% 400V  |
| C512          | 1-102-212-00                                 | CERAMIC       | 820PF 10% 500V    | C626     | 1-124-478-11 | ELECT         | 100MF 20% 25V     |
| C513          | 1-102-212-00                                 | CERAMIC       | 820PF 10% 500V    | C627     | 1-124-443-00 | ELECT         | 100MF 20% 10V     |
| C514          | 1-102-244-00                                 | CERAMIC       | 220PF 10% 500V    | C628 Δ   | 1-164-497-51 | CERAMIC       | 470PF 20% 400V    |
| C515          | 1-137-416-11                                 | FILM          | 0.01MF 10% 100V   | C634     | 1-165-127-11 | CERAMIC       | 470PF 10% 500V    |
| C517          | 1-162-116-00                                 | CERAMIC       | 680PF 10% 2KV     | C635     | 1-124-477-11 | ELECT         | 47MF 20% 16V      |
| C518          | 1-162-116-00                                 | CERAMIC       | 680PF 10% 2KV     | C636     | 1-137-374-11 | FILM          | 0.047MF 5% 50V    |
| C519 Δ        | 1-137-024-11                                 | FILM          | 0.02MF 3% 2KV     | C637     | 1-124-916-11 | ELECT         | 22MF 20% 25V      |
| C520 Δ        | 1-162-134-91                                 | CERAMIC       | 470PF 10% 2KV     | C640     | 1-124-902-00 | ELECT         | 0.47MF 20% 50V    |
| C521 Δ        | 1-136-316-51                                 | FILM          | 0.056MF 5% 630V   | C641     | 1-124-443-00 | ELECT         | 100MF 20% 10V     |
| C522          | 1-106-383-00                                 | MYLAR         | 0.047MF 99% 200V  | C642     | 1-137-217-11 | FILM          | 0.01MF 5% 1.25KV  |
| C523          | 1-102-002-00                                 | CERAMIC       | 680PF 10% 500V    | C643     | 1-137-218-11 | FILM          | 0.012MF 5% 1.25KV |
| C524          | 1-102-212-00                                 | CERAMIC       | 820PF 10% 500V    | C645     | 1-102-125-00 | CERAMIC       | 0.0047MF 10% 50V  |
| C525          | 1-124-902-00                                 | ELECT         | 0.47MF 20% 50V    | C646     | 1-126-101-11 | ELECT         | 100MF 20% 16V     |
| C526          | 1-106-395-00                                 | MYLAR         | 0.15MF 10% 200V   | C647     | 1-124-916-11 | ELECT         | 22MF 20% 25V      |
| C527          | 1-124-341-00                                 | ELECT         | 1MF 20% 200V      | C684     | 1-124-907-11 | ELECT         | 10MF 20% 50V      |
| C528          | 1-136-113-00                                 | FILM          | 2MF 5% 200V       |          |              |               |                   |
| C529          | 1-137-410-11                                 | FILM          | 0.001MF 10% 100V  |          |              |               |                   |
| C530          | 1-104-770-11                                 | FILM          | 0.62MF 5% 200V    |          |              |               |                   |
| C530          | 1-104-844-11                                 | CAP, FILM (S) | 0.62MF            |          |              |               |                   |
| C531          | 1-124-477-11                                 | ELECT         | 47MF 20% 25V      |          |              |               |                   |
| C532          | 1-136-165-00                                 | FILM          | 0.1MF 5% 50V      |          |              |               |                   |
| C533          | 1-124-927-11                                 | ELECT         | 4.7MF 20% 50V     |          |              |               |                   |
| C534          | 1-136-161-00                                 | FILM          | 0.047MF 5% 50V    |          |              |               |                   |
| C535          | 1-124-911-11                                 | ELECT         | 220MF 20% 50V     |          |              |               |                   |
| C536          | 1-137-421-91                                 | FILM          | 0.068MF 10% 100V  |          |              |               |                   |
| C538          | 1-136-161-00                                 | FILM          | 0.047MF 5% 50V    |          |              |               |                   |
| C540          | 1-137-366-11                                 | FILM          | 0.0022MF 5% 50V   |          |              |               |                   |
| C541          | 1-137-366-11                                 | FILM          | 0.0022MF 5% 50V   |          |              |               |                   |
| C542          | 1-130-481-00                                 | FILM          | 0.0068MF 5% 50V   |          |              |               |                   |
| C545          | 1-124-927-11                                 | ELECT         | 4.7MF 20% 50V     |          |              |               |                   |
| C547          | 1-164-079-11                                 | CERAMIC       | 330PF 10% 50V     |          |              |               |                   |
| C548 Δ        | 1-162-116-91                                 | CERAMIC       | 680PF 10% 2KV     |          |              |               |                   |
| C550          | 1-106-387-00                                 | MYLAR         | 0.068MF 10% 200V  |          |              |               |                   |
| C553          | 1-164-079-11                                 | CERAMIC       | 330PF 10% 50V     |          |              |               |                   |
| C561          | 1-162-815-11                                 | CERAMIC       | 47PF 5% 500V      |          |              |               |                   |
| C595          | 1-123-932-00                                 | ELECT         | 4.7MF 20% 160V    |          |              |               |                   |
| C598          | 1-124-342-00                                 | ELECT         | 3.3MF 20% 160V    |          |              |               |                   |
| C600          | 1-124-907-11                                 | ELECT         | 10MF 20% 50V      |          |              |               |                   |
| C601 Δ        | 1-136-311-51                                 | FILM          | 0.47MF 20% 125V   |          |              |               |                   |
| C602 Δ        | 1-136-311-51                                 | FILM          | 0.47MF 20% 125V   |          |              |               |                   |
| C603 Δ        | 1-136-311-51                                 | FILM          | 0.47MF 20% 125V   |          |              |               |                   |
| C604 Δ        | 1-162-578-81                                 | CERAMIC       | 0.0047MF 20% 400V |          |              |               |                   |
| C607          | 1-104-757-11                                 | ELECT         | 470MF 20% 200V    |          |              |               |                   |
| C608          | 1-104-757-11                                 | ELECT         | 470MF 20% 200V    |          |              |               |                   |
| C609          | 1-136-169-00                                 | FILM          | 0.22MF 5% 50V     |          |              |               |                   |
| C610          | 1-136-169-00                                 | FILM          | 0.22MF 5% 50V     |          |              |               |                   |
| C611          | 1-136-169-00                                 | FILM          | 0.22MF 5% 50V     |          |              |               |                   |
| C612          | 1-136-169-00                                 | FILM          | 0.22MF 5% 50V     |          |              |               |                   |
| C613          | 1-164-625-11                                 | CERAMIC       | 680PF 10% 500V    |          |              |               |                   |
| C614          | 1-164-625-11                                 | CERAMIC       | 680PF 10% 500V    |          |              |               |                   |
| C616          | 1-124-907-11                                 | ELECT         | 10MF 20% 50V      |          |              |               |                   |
| C617          | 1-124-618-11                                 | ELECT         | 2200MF 20% 35V    |          |              |               |                   |
| C618          | 1-124-557-11                                 | ELECT         | 1000MF 20% 25V    |          |              |               |                   |
| C619          | 1-124-360-00                                 | ELECT         | 1000MF 20% 16V    |          |              |               |                   |
| C620          | 1-164-644-11                                 | CERAMIC       | 330PF 10% 500V    |          |              |               |                   |
| C621          | 1-126-356-11                                 | ELECT         | 220MF 20% 160V    |          |              |               |                   |
| C623          | 1-162-117-00                                 | CERAMIC       | 100PF 10% 500V    |          |              |               |                   |
| C624          | 1-136-487-81                                 | FILM          | 0.015MF 5% 50V    |          |              |               |                   |
| C625          | 1-129-744-91                                 | FILM          | 0.027MF 10% 400V  |          |              |               |                   |
| C626          | 1-124-478-11                                 | ELECT         | 100MF 20% 25V     |          |              |               |                   |
| C627          | 1-124-443-00                                 | ELECT         | 100MF 20% 10V     |          |              |               |                   |
| C628 Δ        | 1-164-497-51                                 | CERAMIC       | 470PF 20% 400V    |          |              |               |                   |
| C634          | 1-165-127-11                                 | CERAMIC       | 470PF 10% 500V    |          |              |               |                   |
| C635          | 1-124-477-11                                 | ELECT         | 47MF 20% 16V      |          |              |               |                   |
| C636          | 1-137-374-11                                 | FILM          | 0.047MF 5% 50V    |          |              |               |                   |
| C637          | 1-124-916-11                                 | ELECT         | 22MF 20% 25V      |          |              |               |                   |
| C640          | 1-124-902-00                                 | ELECT         | 0.47MF 20% 50V    |          |              |               |                   |
| C641          | 1-124-443-00                                 | ELECT         | 100MF 20% 10V     |          |              |               |                   |
| C642          | 1-137-217-11                                 | FILM          | 0.01MF 5% 1.25KV  |          |              |               |                   |
| C643          | 1-137-218-11                                 | FILM          | 0.012MF 5% 1.25KV |          |              |               |                   |
| C645          | 1-102-125-00                                 | CERAMIC       | 0.0047MF 10% 50V  |          |              |               |                   |
| C646          | 1-126-101-11                                 | ELECT         | 100MF 20% 16V     |          |              |               |                   |
| C647          | 1-124-916-11                                 | ELECT         | 22MF 20% 25V      |          |              |               |                   |
| C684          | 1-124-907-11                                 | ELECT         | 10MF 20% 50V      |          |              |               |                   |

## KV-27TS29/27TS32/27TS36

RM-Y116 RM-Y117 RM-Y118

## KV-32TS36/32TS46

RM-Y118 RM-Y118  
SA-W200

D

Les composants identifiés par une  
trame et une marque  $\Delta$  sont  
critiques pour la sécurité.  
Ne les remplacer que par une pièce  
portant le numéro spécifié.

The components identified by  
shading and mark  $\Delta$  are critical  
for safety.  
Replace only with part number  
specified.

| REF. NO.    | PART NO.              | DESCRIPTION   | REMARK         | REF. NO.       | PART NO.              | DESCRIPTION                      | REMARK |
|-------------|-----------------------|---|----------------|----------------|-----------------------|----------------------------------|--------|
| C695        | 1-124-907-11          | ELECT   | 10MF 20% 50V   | D622           | 8-719-911-19          | DIODE 1SS119                     |        |
| C2205       | 1-124-925-11          | ELECT   | 2.2MF 20% 50V  | D623           | 8-719-911-19          | DIODE 1SS119                     |        |
| C2208       | 1-124-925-11          | ELECT   | 2.2MF 20% 50V  | D624           | 8-719-911-19          | DIODE 1SS119                     |        |
| C2210       | 1-124-120-11          | ELECT   | 220MF 20% 25V  | D626           | 8-719-510-48          | DIODE D1N20R                     |        |
| C2211       | 1-124-477-11          | ELECT   | 47MF 20% 25V   | D627           | 8-719-510-48          | DIODE D1N20R                     |        |
| C2212       | 1-124-120-11          | ELECT   | 220MF 20% 25V  | D628           | 8-719-911-19          | DIODE 1SS119                     |        |
| C2213       | 1-136-173-00          | FILM  | 0.47MF 5% 50V  | D633           | 8-719-110-09          | DIODE RD8.2ESB3                  |        |
| C2215       | 1-136-169-00          | FILM  | 0.22MF 5% 50V  | D634           | 8-719-911-19          | DIODE 1SS119                     |        |
| C2216       | 1-124-480-11          | ELECT   | 470MF 20% 25V  | D635           | 8-719-911-19          | DIODE 1SS119                     |        |
| C2217       | 1-136-169-00          | FILM  | 0.22MF 5% 50V  | D636           | 8-719-510-48          | DIODE D1N20R                     |        |
| C2218       | 1-124-557-11          | ELECT   | 1000MF 20% 25V | D637           | 8-719-911-19          | DIODE 1SS119                     |        |
| C2219       | 1-124-557-11          | ELECT   | 1000MF 20% 25V | D638           | 8-719-911-19          | DIODE 1SS119                     |        |
| C2220       | 1-124-925-11          | ELECT   | 2.2MF 20% 50V  |                |                       |                                  |        |
| <CONNECTOR> |                       |   |                | <FUSE>         |                       |                                  |        |
| CN104       | *1-573-979-11         | CONNECTOR, BOARD TO BOARD 11P                       |                | F601           | $\Delta$ 1-532-748-11 | FUSE, GLASS TUBE (6.3A/125V)     |        |
| CN105       | *1-508-768-00         | PIN, CONNECTOR (5MM PITCH) 6P                       |                |                |                       |                                  |        |
| CN107       | *1-580-798-11         | CONNECTOR PIN (DY) 6P                               |                | <FERRITE BEAD> |                       |                                  |        |
| CN108       | 1-573-296-11          | CONNECTOR, BOARD TO BOARD 10P<br>(KV-32TS46/32TS36) |                | FB501          | 1-412-911-11          | INDUCTOR, FERRITE BEAD           |        |
| CN109       | 1-573-296-11          | CONNECTOR, BOARD TO BOARD 10P<br>(KV-32TS46/32TS36) |                | FB502          | 1-412-911-11          | INDUCTOR, FERRITE BEAD           |        |
| CN112       | *1-508-786-00         | PIN, CONNECTOR (5MM PITCH) 2P                       |                | FB601          | 1-412-911-11          | INDUCTOR, FERRITE BEAD           |        |
| CN113       | *1-508-765-00         | PIN, CONNECTOR (5MM PITCH) 3P                       |                | FB602          | 1-412-911-11          | INDUCTOR, FERRITE BEAD           |        |
| CN114       | *1-580-843-11         | PIN, CONNECTOR (POWER)                              |                | FB603          | 1-412-911-11          | INDUCTOR, FERRITE BEAD           |        |
| CN115       | 1-573-298-11          | CONNECTOR, BOARD TO BOARD 20P                       |                | FB604          | 1-412-911-11          | INDUCTOR, FERRITE BEAD           |        |
| CN116       | *1-691-616-11         | CONNECTOR, BOARD TO BOARD 15P                       |                | FB605          | 1-412-911-11          | INDUCTOR, FERRITE BEAD           |        |
| CN117       | *1-573-978-11         | CONNECTOR, BOARD TO BOARD 11P                       |                | FB606          | 1-412-911-11          | INDUCTOR, FERRITE BEAD           |        |
|             |                       |   |                | FB613          | 1-412-911-11          | INDUCTOR, FERRITE BEAD           |        |
|             |                       |   |                | FB614          | 1-412-911-11          | INDUCTOR, FERRITE BEAD           |        |
| <DIODE>     |                       |   |                | <IC>           |                       |                                  |        |
| D501        | 8-719-976-64          | DIODE RGP02-17                                      |                | IC501          | 8-759-980-58          | IC TDA8172                       |        |
| D502        | 8-719-979-85          | DIODE EGP20G  |                | IC504          | 8-759-103-93          | IC UPC393C                       |        |
| D503        | 8-719-979-85          | DIODE EGP20G  |                |                |                       |                                  |        |
| D504        | $\Delta$ 8-719-302-44 | DIODE EL1Z-V1                                       |                | <POWER MODULE> |                       |                                  |        |
| D505        | 8-719-936-84          | DIODE RGP10GPKG3                                    |                | IC601          | $\Delta$ 1-810-051-11 | POWER MODULE DM-48               |        |
| D506        | 8-719-945-80          | DIODE ERC06-15S                                     |                |                |                       |                                  |        |
| D507        | 8-719-945-80          | DIODE ERC06-15S                                     |                | <IC>           |                       |                                  |        |
| D508        | 8-719-900-26          | DIODE ERD29-08J                                     |                | IC602          | 8-759-805-37          | IC L78LR05D-MA                   |        |
| D509        | 8-719-936-84          | DIODE RGP10GPKG3                                    |                | IC604          | 8-759-924-12          | IC LM7805CT                      |        |
| D510        | 8-719-908-03          | DIODE GP08D   |                | IC605          | 8-759-701-79          | IC LM7812CT                      |        |
| D511        | 8-719-908-03          | DIODE GP08D   |                | IC606          | 8-759-982-10          | IC RC7809FA                      |        |
| D512        | 8-719-109-84          | DIODE RD5.1ESB1                                     |                | IC610          | 8-759-150-61          | IC UPC78L05T                     |        |
| D513        | 8-719-908-03          | DIODE GP08D   |                | IC2200         | 8-759-980-43          | IC TDA2009A                      |        |
| D514        | 8-719-911-19          | DIODE 1SS119  |                |                |                       |                                  |        |
| D515        | 8-719-911-19          | DIODE 1SS119  |                | <COIL>         |                       |                                  |        |
| D601        | 8-719-911-19          | DIODE 1SS119  |                | L502           | 1-421-465-00          | COIL, FERRITE CHOKE 68UH         |        |
| D602        | $\Delta$ 8-719-510-63 | DIODE D4SB60L-F                                     |                | L503           | 1-412-524-11          | INDUCTOR 8.2UH                   |        |
| D603        | 8-719-500-69          | DIODE S3V10SS                                       |                | L504           | 1-410-669-31          | INDUCTOR 33UH                    |        |
| D605        | 8-719-500-69          | DIODE S3V10SS                                       |                | L505           | 1-459-104-00          | COIL, WITH CORE                  |        |
| D607        | 8-719-510-02          | DIODE D1NS4   |                | L506           | 1-422-613-11          | COIL, AIR CORE                   |        |
| D608        | 8-719-510-02          | DIODE D1NS4   |                | L508           | 1-412-553-11          | INDUCTOR 3.3MMH                  |        |
| D609        | 8-719-510-02          | DIODE D1NS4   |                | L509           | $\Delta$ 1-460-173-21 | COLL, HORIZONTAL LINEARITY (HLC) |        |
| D610        | 8-719-510-02          | DIODE D1NS4   |                | L510           | 1-406-607-11          | COIL, CHOKE 15MMH                |        |
| D611        | 8-719-510-02          | DIODE D1NS4   |                | L513           | 1-412-524-11          | INDUCTOR 8.2UH                   |        |
| D612        | 8-719-031-80          | DIODE D5SC4MR                                       |                |                |                       |                                  |        |
| D613        | 8-719-022-97          | DIODE D2S4MF  |                |                |                       |                                  |        |
| D614        | 8-719-110-33          | DIODE RD12ESB3                                      |                |                |                       |                                  |        |
| D615        | 8-719-027-43          | DIODE S2L20UF                                       |                |                |                       |                                  |        |
| D616        | 8-719-027-43          | DIODE S2L20UF                                       |                |                |                       |                                  |        |
| D617        | 8-719-027-43          | DIODE S2L20UF                                       |                |                |                       |                                  |        |
| D618        | 8-719-027-43          | DIODE S2L20UF                                       |                |                |                       |                                  |        |
| D619        | 8-719-510-02          | DIODE D1NS4   |                |                |                       |                                  |        |

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by  $\Delta$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

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KV-32TS36/32TS46

RM-Y116 RM-Y118 SA-W200

D

| REF. NO.               | PART NO.     | DESCRIPTION               | REMARK | REF. NO.      | PART NO.     | DESCRIPTION         | REMARK |
|------------------------|--------------|---------------------------|--------|---------------|--------------|---------------------|--------|
| <PROTECTOR MODULE>     |              |                           |        | R547          | 1-247-883-00 | CARBON 150K 5%      | 1/4W   |
| PM501                  | 1-810-061-11 | PROTECTOR MODULE PM-39    |        | R550          | 1-249-429-11 | CARBON 10K 5%       | 1/4W   |
|                        |              | (KV-27TS36/27TS32/27TS29) |        | R551          | 1-249-429-11 | CARBON 10K 5%       | 1/4W   |
| PM501                  | 1-810-061-21 | PROTECTOR MODULE PM-39    |        | R554          | 1-216-371-00 | METAL OXIDE 1.5 5%  | 2W F   |
|                        |              | (KV-32TS46/32TS36)        |        | R556          | 1-249-411-11 | CARBON 330 5%       | 1/4W   |
|                        |              |                           |        | R557          | 1-249-415-11 | CARBON 680 5%       | 1/4W F |
| <IC LINK>              |              |                           |        | R561          | 1-249-429-11 | CARBON 10K 5%       | 1/4W   |
| PS2201A1               | 1-532-675-91 | LINK, IC                  |        | R562          | 1-215-437-00 | METAL 4.7K 1%       | 1/4W   |
| <TRANSISTOR>           |              |                           |        | R563          | 1-249-429-11 | CARBON 10K 5%       | 1/4W   |
| Q502                   | 8-729-119-80 | TRANSISTOR 2SC2688-LK     |        | R564          | 1-249-433-11 | CARBON 22K 5%       | 1/4W   |
| Q503                   | 8-729-809-29 | TRANSISTOR 2SC4159-E      |        | R566          | 1-249-435-11 | CARBON 33K 5%       | 1/4W   |
| Q505                   | 8-729-119-78 | TRANSISTOR 2SC2785-HFE    |        | R580          | 1-249-411-11 | CARBON 330 5%       | 1/4W   |
| Q591                   | 8-729-016-32 | TRANSISTOR 2SC4927-01     |        | R601 $\Delta$ | 1-202-888-91 | SOLID 2.2M 20%      | 1/2W   |
| Q601                   | 8-729-019-51 | TRANSISTOR 2SC4834MNP     |        | R602 $\Delta$ | 1-202-888-91 | SOLID 2.2M 20%      | 1/2W   |
| Q602                   | 8-729-019-51 | TRANSISTOR 2SC4834MNP     |        | R603          | 1-249-419-11 | CARBON 1.5K 5%      | 1/4W   |
| Q603                   | 8-729-119-76 | TRANSISTOR 2SA1175-HFE    |        | R605          | 1-247-893-11 | CARBON 390K 5%      | 1/4W   |
| Q604                   | 8-729-119-78 | TRANSISTOR 2SC2785-HFE    |        | R606          | 1-247-893-11 | CARBON 390K 5%      | 1/4W   |
| Q605                   | 8-729-119-78 | TRANSISTOR 2SC2785-HFE    |        | R607 $\Delta$ | 1-202-933-61 | FUSIBLE 0.1 10%     | 1/2W F |
| Q611                   | 8-729-119-78 | TRANSISTOR 2SC2785-HFE    |        | R608          | 1-215-860-11 | METAL OXIDE 33 5%   | 1W F   |
| Q613                   | 8-729-924-90 | TRANSISTOR 2SB1370-EF     |        | R609          | 1-216-352-11 | METAL OXIDE 1.8 5%  | 1W F   |
| Q614                   | 8-729-119-78 | TRANSISTOR 2SC2785-HFE    |        | R610          | 1-216-352-11 | METAL OXIDE 1.8 5%  | 1W F   |
| Q2202                  | 8-729-119-78 | TRANSISTOR 2SC2785-HFE    |        | R611          | 1-216-468-91 | METAL OXIDE 82K 5%  | 2W F   |
| Q2203                  | 8-729-119-76 | TRANSISTOR 2SA1175-HFE    |        | R612          | 1-216-468-91 | METAL OXIDE 82K 5%  | 2W F   |
| <RESISTOR>             |              |                           |        | R613          | 1-215-860-11 | METAL OXIDE 33 5%   | 1W F   |
| R501                   | 1-249-378-11 | CARBON 0.56 5%            | 1/4W F | R614          | 1-215-860-11 | METAL OXIDE 33 5%   | 1W F   |
| R503                   | 1-215-862-11 | METAL OXIDE 68 5%         | 1W F   | R615          | 1-249-421-11 | CARBON 2.2K 5%      | 1/4W   |
| R504                   | 1-215-872-11 | METAL OXIDE 3.3K 5%       | 1W F   | R616          | 1-249-417-11 | CARBON 1K 5%        | 1/4W   |
| R505                   | 1-249-377-11 | CARBON 0.47 5%            | 1/4W F | R617          | 1-249-377-11 | CARBON 0.47 5%      | 1/4W F |
| R506                   | 1-215-886-11 | METAL OXIDE 100 5%        | 2W F   | R618          | 1-249-377-11 | CARBON 0.47 5%      | 1/4W F |
| R507                   | 1-249-429-11 | CARBON 10K 5%             | 1/4W   | R619          | 1-249-377-11 | CARBON 0.47 5%      | 1/4W F |
| R508                   | 1-249-425-11 | CARBON 4.7K 5%            | 1/4W   | R621          | 1-249-377-11 | CARBON 0.47 5%      | 1/4W F |
| R509                   | 1-249-389-11 | CARBON 4.7 5%             | 1/4W F | R622          | 1-249-377-11 | CARBON 0.47 5%      | 1/4W F |
| $\Delta$ R511 $\Delta$ |              | CARBON                    | 1/4W   | R623          | 1-249-377-11 | CARBON 0.47 5%      | 1/4W F |
| R512                   | 1-249-389-11 | CARBON 4.7 5%             | 1/4W F | R624          | 1-249-377-11 | CARBON 0.47 5%      | 1/4W F |
| R513                   | 1-216-393-00 | METAL OXIDE 2.2 5%        | 3W F   | R625          | 1-249-377-11 | CARBON 0.47 5%      | 1/4W F |
| R514                   | 1-249-429-11 | CARBON 10K 5%             | 1/4W   | R627          | 1-249-377-11 | CARBON 0.47 5%      | 1/4W F |
| R515                   | 1-216-363-00 | METAL OXIDE 0.33 5%       | 2W F   | R628          | 1-249-377-11 | CARBON 0.47 5%      | 1/4W F |
| R516                   | 1-249-401-11 | CARBON 47 5%              | 1/4W   | R629          | 1-249-388-11 | CARBON 3.9 5%       | 1/4W F |
| R517                   | 1-215-916-00 | METAL OXIDE 680 5%        | 3W F   | R630          | 1-215-857-11 | METAL OXIDE 10 5%   | 1W F   |
| R518                   | 1-215-916-00 | METAL OXIDE 680 5%        | 3W F   | R632          | 1-249-417-11 | CARBON 1K 5%        | 1/4W F |
| R519                   | 1-249-426-11 | CARBON 5.6K 5%            | 1/4W F | R633          | 1-249-405-11 | CARBON 100 5%       | 1/4W F |
| R520                   | 1-249-423-11 | CARBON 3.9K 5%            | 1/4W   | R635          | 1-249-413-11 | CARBON 470 5%       | 1/4W F |
| R521                   | 1-249-411-11 | CARBON 330 5%             | 1/4W   | R636          | 1-249-383-11 | CARBON 1.5 5%       | 1/4W F |
| R522                   | 1-215-886-11 | METAL OXIDE 100 5%        | 2W F   | R637          | 1-249-421-11 | CARBON 2.2K 5%      | 1/4W   |
| R523                   | 1-215-862-11 | METAL OXIDE 68 5%         | 1W F   | R638          | 1-249-423-11 | CARBON 3.3K 5%      | 1/4W   |
| $\Delta$ R524 $\Delta$ |              | CARBON                    | 1/4W   | R639          | 1-249-423-11 | CARBON 3.3K 5%      | 1/4W   |
| R526                   | 1-247-887-00 | CARBON 220K 5%            | 1/4W   | R640 $\Delta$ | 1-202-893-91 | SOLID 8.2M 20%      | 1/2W   |
| R527                   | 1-215-861-00 | METAL OXIDE 47 5%         | 1W F   | R643          | 1-216-379-11 | METAL OXIDE 6.8 5%  | 2W F   |
| R528                   | 1-260-326-71 | CARBON 680 5%             | 1/2W   | R644 $\Delta$ | 1-212-853-61 | FUSIBLE 6.8 5%      | 1/4W F |
| R530                   | 1-215-445-00 | METAL 10K 1%              | 1/4W   | R645          | 1-249-377-11 | CARBON 0.47 5%      | 1/4W F |
| R531                   | 1-247-903-91 | CARBON 1M 5%              | 1/4W   | R646          | 1-249-429-11 | CARBON 10K 5%       | 1/4W   |
| R532                   | 1-215-446-00 | METAL 11K 1%              | 1/4W   | R647          | 1-249-433-11 | CARBON 22K 5%       | 1/4W   |
| R534                   | 1-249-385-11 | CARBON 2.2 5%             | 1/4W F | R648          | 1-249-414-11 | CARBON 560 5%       | 1/4W   |
| R535                   | 1-216-453-00 | METAL OXIDE 270 5%        | 2W F   | R649          | 1-216-431-11 | METAL OXIDE 560 5%  | 1W F   |
| R536                   | 1-249-389-11 | CARBON 4.7 5%             | 1/4W F | R650          | 1-249-405-11 | CARBON 100 5%       | 1/4W F |
| R539                   | 1-215-459-00 | METAL 39K 1%              | 1/4W   | R651 $\Delta$ | 1-212-954-61 | FUSIBLE 6.8 5%      | 1/2W F |
| R543                   | 1-249-419-11 | CARBON 1.5K 5%            | 1/4W   | R652 $\Delta$ | 1-212-954-61 | FUSIBLE 6.8 5%      | 1/2W F |
| R546                   | 1-249-431-11 | CARBON 15K 5%             | 1/4W   | R653          | 1-249-381-11 | CARBON 1 5%         | 1/4W   |
|                        |              |                           |        | R654          | 1-216-385-11 | METAL OXIDE 0.47 5% | 3W F   |
|                        |              |                           |        | R655          | 1-249-417-11 | CARBON 1K 5%        | 1/4W F |
|                        |              |                           |        | R656          | 1-249-381-11 | CARBON 1 5%         | 1/4W   |
|                        |              |                           |        | R657          | 1-249-417-11 | CARBON 1K 5%        | 1/4W   |
|                        |              |                           |        | R658          | 1-249-389-11 | CARBON 4.7 5%       | 1/4W F |

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D

H

Les composants identifiés par une  
trame et une marque  $\Delta$  sont  
critiques pour la sécurité.  
Ne les remplacer que par une pièce  
portant le numéro spécifié.

The components identified by  
shading and mark  $\Delta$  are critical  
for safety.  
Replace only with part number  
specified.

| REF.NO. | PART NO.     | DESCRIPTION  | REMARK        | REF.NO. | PART NO.     | DESCRIPTION   | REMARK |
|---------|--------------|--|---------------|---------|--------------|---|--------|
| R659    | 1-247-883-00 | CARBON   | 150K 5% 1/4W  | C1002   | 1-124-903-11 | ELECT 1MF 20% 50V<br>(KV-32TS46/32TS36/27TS36/27TS32) |        |
| R660    | 1-249-435-11 | CARBON   | 22K 5% 1/4W   | C1003   | 1-124-903-11 | ELECT 1MF 20% 50V<br>(KV-32TS46/32TS36/27TS36/27TS32) |        |
| R661    | 1-249-406-11 | CARBON   | 120 5% 1/4W   | C1004   | 1-124-122-11 | ELECT 100MF 20% 50V                                   |        |
| R690    | 1-249-423-11 | CARBON   | 3.3K 5% 1/4W  |         |              |   |        |
| R691    | 1-249-423-11 | CARBON   | 3.3K 5% 1/4W  |         |              |   |        |
| R2209   | 1-249-427-11 | CARBON   | 6.8K 5% 1/4W  |         |              |   |        |
| R2210   | 1-249-435-11 | CARBON   | 33K 5% 1/4W   |         |              |   |        |
| R2211   | 1-249-427-11 | CARBON   | 6.8K 5% 1/4W  |         |              |   |        |
| R2212   | 1-249-435-11 | CARBON   | 33K 5% 1/4W   |         |              |   |        |
| R2215   | 1-249-425-11 | CARBON   | 4.7K 5% 1/4W  |         |              |   |        |
| R2216   | 1-249-437-11 | CARBON   | 47K 5% 1/4W   |         |              |   |        |
| R2217   | 1-249-435-11 | CARBON   | 33K 5% 1/4W   |         |              |   |        |
| R2218   | 1-249-441-11 | CARBON   | 100K 5% 1/4W  |         |              |   |        |
| R2219   | 1-249-413-11 | CARBON   | 470 5% 1/4W   |         |              |   |        |
| R2220   | 1-249-430-11 | CARBON   | 12K 5% 1/4W   |         |              |   |        |
| R2221   | 1-249-430-11 | CARBON   | 12K 5% 1/4W   |         |              |   |        |
| R2222   | 1-249-398-11 | CARBON   | 27 5% 1/4W    |         |              |   |        |
| R2223   | 1-249-418-11 | CARBON   | 1.2K 5% 1/4W  |         |              |   |        |
| R2224   | 1-249-418-11 | CARBON   | 1.2K 5% 1/4W  |         |              |   |        |
| R2225   | 1-249-398-11 | CARBON   | 27 5% 1/4W    |         |              |   |        |
| R2226   | 1-249-385-11 | CARBON   | 2.2 5% 1/4W F |         |              |   |        |
| R2227   | 1-249-385-11 | CARBON   | 2.2 5% 1/4W F |         |              |   |        |
| R2228   | 1-249-421-11 | CARBON   | 2.2K 5% 1/4W  |         |              |   |        |
| R2229   | 1-249-421-11 | CARBON   | 2.2K 5% 1/4W  |         |              |   |        |
|         |              | <RELAY>  |               |         |              |   |        |
| RY601A  | 1-515-684-22 | RELAY  |               |         |              |   |        |
| RY602   | 1-515-516-00 | RELAY  |               |         |              |   |        |
|         |              | <SWITCH>   |               |         |              |   |        |
| S501    | 1-572-707-11 | SWITCH, LEVER  |               |         |              |   |        |
| S502    | 1-572-707-11 | SWITCH, LEVER  |               |         |              |   |        |
|         |              | <TRANSFORMER>  |               |         |              |   |        |
| T501    | 1-453-146-11 | TRANSFORMER ASSY, FLYBACK (NX-2604A3)                  |               |         |              |   |        |
| T502    | 1-437-195-14 | TRANSFORMER, HORIZONTAL DRIVE (HDT)                    |               |         |              |   |        |
| T503    | 1-424-545-22 | TRANSFORMER, FERRITE (PMT)                             |               |         |              |   |        |
| T601    | 1-423-593-11 | TRANSFORMER, LINE FILTER (LFT)                         |               |         |              |   |        |
| T602    | 1-424-220-21 | TRANSFORMER, LINE FILTER (LFT)                         |               |         |              |   |        |
| T603    | 1-423-563-11 | TRANSFORMER, CONVERTER DRIVE (CDT)                     |               |         |              |   |        |
| T604    | 1-423-615-11 | TRANSFORMER, CONVERTER (PIT)                           |               |         |              |   |        |
| T605    | 1-423-582-11 | TRANSFORMER, FERRITE (SBT)                             |               |         |              |   |        |
|         |              | <THERMISTOR>   |               |         |              |   |        |
| THP601A | 1-809-539-11 | THERMISTOR, POSITIVE                                   |               |         |              |   |        |
|         |              | <VARISTOR>   |               |         |              |   |        |
| VDR601  | 1-807-288-11 | VARISTOR   |               |         |              |   |        |
| VDR602  | 1-810-053-21 | VARISTOR   |               |         |              |   |        |
| VDR603  | 1-810-053-21 | VARISTOR   |               |         |              |   |        |
|         |              | <CAPACITOR>  |               |         |              |   |        |
| C1001   | 1-124-916-11 | ELECT 22MF 20% 25V<br>(KV-32TS46/32TS36/27TS36/27TS32) |               |         |              |   |        |



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## (SUPER WOOFER BOARD)

| REF.NO.   | PART NO.     | DESCRIPTION         | REMARK          | REF.NO.      | PART NO.     | DESCRIPTION            | REMARK |
|---|--------------|---------------------|-----------------|--------------|--------------|------------------------|--------|
| *A-1331-264-A SUPER WOOFER BOARD, COMPLETE (KV-32TS46 only) |              |                     |                 | <IC>         |              |                        |        |
|   |              | <CAPACITOR>         |                 | IC001        | 9-904-756-01 | IC NJM2068S            |        |
| C001  | 1-102-114-00 | CERAMIC             | 470PF 10% 50V   | IC002        | 9-904-756-01 | IC NJM2068S            |        |
| C002  | 1-102-114-00 | CERAMIC             | 470PF 10% 50V   | IC003        | 9-904-756-01 | IC NJM2068S            |        |
| C003  | 1-124-903-11 | ELECT               | 1MF 20% 50V     | IC004        | 9-904-757-01 | IC M5233L              |        |
| C004  | 1-124-903-11 | ELECT               | 1MF 20% 50V     | IC005        | 9-904-755-01 | IC TA8225L(PA10-K)     |        |
| C005  | 1-130-494-11 | FILM                | 0.082MF 5% 50V  | <JACK>       |              |                        |        |
| C006  | 1-130-490-11 | FILM                | 0.039MF 5% 50V  | J001         | 9-904-759-01 | RCA JACK               |        |
| C007  | 1-130-494-11 | FILM                | 0.082MF 5% 50V  | <TRANSISTOR> |              |                        |        |
| C008  | 1-130-490-11 | FILM                | 0.039MF 5% 50V  | Q001         | 8-729-140-96 | TRANSISTOR 2SD774-34   |        |
| C009  | 1-124-903-11 | ELECT               | 1MF 20% 50V     | Q002         | 8-729-119-78 | TRANSISTOR 2SC2785-HFE |        |
| C010  | 1-124-903-11 | ELECT               | 1MF 20% 50V     | Q003         | 8-729-119-76 | TRANSISTOR 2SA1175-HFE |        |
| C011  | 1-102-973-00 | CERAMIC             | 100PF 10% 50V   | Q004         | 8-729-119-76 | TRANSISTOR 2SA1175-HFE |        |
| C012  | 1-124-903-11 | ELECT               | 1MF 20% 50V     | <RESISTOR>   |              |                        |        |
| C013  | 1-124-908-00 | ELECT               | 0.47MF 20% 50V  | R001         | 1-249-405-11 | CARBON 100 5% 1/4W     |        |
| C014  | 1-124-907-11 | ELECT               | 10MF 20% 50V    | R002         | 1-249-405-11 | CARBON 100 5% 1/4W     |        |
| C015  | 1-124-910-11 | ELECT               | 47MF 20% 50V    | R003         | 1-249-426-11 | CARBON 56K 5% 1/4W     |        |
| C016  | 1-124-472-11 | ELECT               | 470MF 20% 10V   | R004         | 1-249-426-11 | CARBON 56K 5% 1/4W     |        |
| C017  | 1-124-472-11 | ELECT               | 470MF 20% 10V   | R005         | 1-247-862-11 | CARBON 20K 5% 1/4W     |        |
| C018  | 1-124-120-11 | ELECT               | 220MF 20% 25V   | R006         | 1-247-862-11 | CARBON 20K 5% 1/4W     |        |
| C019  | 1-124-120-11 | ELECT               | 220MF 20% 25V   | R007         | 1-247-862-11 | CARBON 20K 5% 1/4W     |        |
| C020  | 1-102-074-00 | CERAMIC             | 0.001MF 10% 50V | R008         | 1-247-862-11 | CARBON 20K 5% 1/4W     |        |
| C021  | 1-130-491-00 | FILM                | 0.047MF 5% 50V  | R009         | 1-247-862-11 | CARBON 20K 5% 1/4W     |        |
| C022  | 1-130-491-00 | FILM                | 0.047MF 5% 50V  | R010         | 1-247-862-11 | CARBON 20K 5% 1/4W     |        |
| C023  | 1-124-360-00 | ELECT               | 1000MF 20% 16V  | R011         | 1-249-431-11 | CARBON 15K 5% 1/4W     |        |
| C024  | 1-124-360-00 | ELECT               | 1000MF 20% 16V  | R012         | 1-249-413-11 | CARBON 470 5% 1/4W     |        |
| C025  | 1-124-636-91 | ELECT               | 3300MF 20% 25V  | R013         | 1-247-864-11 | CARBON 24K 5% 1/4W     |        |
| C026  | 1-124-472-11 | ELECT               | 470MF 20% 10V   | R014         | 1-247-864-11 | CARBON 24K 5% 1/4W     |        |
| C027  | 1-124-472-11 | ELECT               | 470MF 20% 10V   | R015         | 1-247-864-11 | CARBON 24K 5% 1/4W     |        |
| C028  | 1-124-472-11 | ELECT               | 470MF 20% 10V   | R016         | 1-247-864-11 | CARBON 24K 5% 1/4W     |        |
| C029  | 1-124-907-11 | ELECT               | 10MF 20% 50V    | R017         | 1-249-417-11 | CARBON 1K 5% 1/4W      |        |
| C030  | 1-102-129-00 | CERAMIC             | 0.01MF 10% 50V  | R018         | 1-249-429-11 | CARBON 10K 5% 1/4W     |        |
| <CONNECTOR>   |              |                     |                 | R019         | 1-247-903-91 | CARBON 1M 5% 1/4W      |        |
| CN001   | 9-904-761-01 | PIN, TERMINAL       |                 | R020         | 1-249-426-11 | CARBON 5.6K 5% 1/4W    |        |
| <DIODE>   |              |                     |                 | R021         | 1-249-417-11 | CARBON 1K 5% 1/4W      |        |
| D001  | 9-904-758-01 | DIODE RBA-402LF-A   |                 | R022         | 1-249-429-11 | CARBON 10K 5% 1/4W     |        |
| D002  | 9-904-765-01 | DIODE ERA15-02VH-T  |                 | R023         | 1-249-429-11 | CARBON 10K 5% 1/4W     |        |
| D003  | 9-904-766-01 | DIODE RD9R1ES(B2)-T |                 | R024         | 1-249-417-11 | CARBON 1K 5% 1/4W      |        |
| D004  | 9-904-766-01 | DIODE RD9R1ES(B2)-T |                 | R025         | 1-247-839-11 | CARBON 2.2K 5% 1/4W    |        |
| D005  | 8-719-802-30 | DIODE 1SS176        |                 | R026         | 1-249-429-11 | CARBON 10K 5% 1/4W     |        |
| D006  | 8-719-802-30 | DIODE 1SS176        |                 | R027         | 1-249-417-11 | CARBON 1K 5% 1/4W      |        |
|   |              |                     |                 | R028         | 1-247-903-91 | CARBON 1M 5% 1/4W      |        |
|   |              |                     |                 | R029         | 1-249-433-11 | CARBON 22K 5% 1/4W     |        |
|   |              |                     |                 | R030         | 1-249-440-11 | CARBON 82K 5% 1/4W     |        |
|   |              |                     |                 | R031         | 1-249-433-11 | CARBON 22K 5% 1/4W     |        |
|   |              |                     |                 | R032         | 1-247-839-11 | CARBON 2.2K 5% 1/4W    |        |
|   |              |                     |                 | R033         | 1-249-433-11 | CARBON 22K 5% 1/4W     |        |

**KV-27TS29 / 27TS32 / 27TS36**  
RM-Y116 RM-Y117 RM-Y118

**KV-32TS36 / 32TS46**  
RM-Y118 RM-Y118  
SA-W200

## SONY SERVICE MANUAL

### US Model

KV-27TS29 Chassis No. SCC-F84C-A  
KV-27TS32 Chassis No. SCC-F84E-A  
KV-27TS36 Chassis No. SCC-F84D-A  
KV-32TS36 Chassis No. SCC-F84A-A  
KV-32TS46 Chassis No. SCC-F84B-A

### Canadian Model

KV-27TS29 Chassis No. SCC-F85C-A  
KV-27TS36 Chassis No. SCC-F85D-A  
KV-32TS36 Chassis No. SCC-F85A-A  
KV-32TS46 Chassis No. SCC-F85B-A

## CORRECTION-1

Correct the service manual as shown below.  
File this collection with the service manual.

 : Corrected portion




### SECTION 3 SET-UP ADJUSTMENTS (See page 40)

| Incorrect  | Correct  |
|--|--|
| <b>3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS</b><br><br><b>1. G2 (SCREEN) ADJUSTMENT(RV702)</b><br>1. Set the PICTURE and BRIGHTNESS to normal.<br>2. Confirm G1 voltage is within $30.0 \pm 5V$ .<br>3. Apply DC voltage of 180V to the cathodes of R, G and B from DC stabilized power source.<br>4. While watching the picture, adjust the G2 control (RV702) to the just the retrace line disappears. | <b>3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS</b><br><br><b>1. G2 (SCREEN) ADJUSTMENT(RV702)</b><br>1. Set the PICTURE and BRIGHTNESS to normal.<br>2. Confirm G1 voltage is within $30.0 \pm 5V$ .<br>3. Apply DC voltage of 170V to the cathodes of R, G and B from DC stabilized power source.<br>4. While watching the picture, adjust the G2 control (RV702) to the just the retrace line disappears. |




## SECTION 7 EXPLODED VIEWS

### 7-2. PICTURE TUBE (See page 102)





| Incorrect   | Correct   |
|---|---|
| 63  1-451-275-41 DEFLECTION YOKE (Y34FXA)<br>(KV-27TS36/27TS32/27TS29) | 63  1-451-275-41 DEFLECTION YOKE (Y28PFA) <br>(KV-27TS36/27TS32/27TS29) |

## SECTION 8 ELECTRICAL PARTS LIST

### D BOARD (See page 113)

| Incorrect  | Correct  |
|--|--|
| PM501 1-810-061-11 PROTECTOR MODULE PM-39<br>(KV-27TS36/27TS32/27TS29) | PM501 1-810-061-11 PROTECTOR MODULE PM-38 <br>(KV-27TS36/27TS32/27TS29) |

### MISCELLANEOUS (See page 117)

| Incorrect   | Correct  |
|---|--|
|  1-451-275-41 DEFLECTION YOKE (Y34FXA)<br>(KV-27TS36/32TS32/27TS29) |  1-451-275-41 DEFLECTION YOKE (Y28PFA) <br>(KV-27TS36/27TS32/27TS29)  |

# KV-27TS29/27TS32/27TS36

RM-Y116

RM-Y117

RM-Y118

# KV-32TS36/32TS46

RM-Y121

RM-Y116

SA-W200

## SONY SERVICE MANUAL SUPPLEMENT-1

**SUBJECT : PARTS CHANGE**

Supplement the service manual as shown below.

File this supplement with the service manual.

### US Model

KV-27TS29 Chassis No. SCC-F84C-A

KV-27TS32 Chassis No. SCC-F84E-A

KV-27TS36 Chassis No. SCC-F84D-A

KV-32TS36 Chassis No. SCC-F84A-A

KV-32TS46 Chassis No. SCC-F84B-A

### Canadian Model

KV-27TS29 Chassis No. SCC-F85C-A

KV-27TS36 Chassis No. SCC-F85D-A

KV-32TS36 Chassis No. SCC-F85A-A

KV-32TS46 Chassis No. SCC-F85B-A

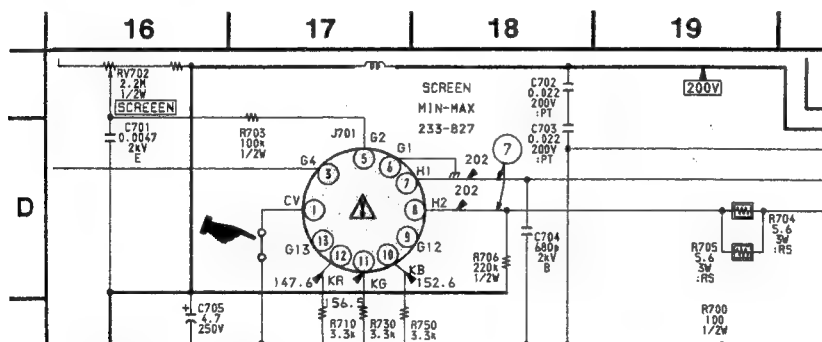
### INTRODUCTION

**PART CHANGE : KV-32TS36/32TS46 only**

### SECTION 6 DIAGRAM

**6-3. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS (See page 64)**

#### C BOARD



### SECTION 7 EXPLODED VIEW

**7-2. PICTURE TUBE (See page 102)**

| REF. NO. | PART. NO.     | DESCRIPTION  |
|----------|---------------|--|
| 59       | △8-733-734-05 | PICTURE TUBE (A80JYV50X) (KV-32TS46/32TS36)        |
|          | △8-733-848-05 | PICTURE TUBE (A68KZJ50X) (KV-27TS36/27TS32/27TS29) |

### SECTION 8 ELECTRICAL PARTS LIST

**MISCELLANEOUS (See page 117)**

| REF. NO. | PART. NO.     | DESCRIPTION  |
|----------|---------------|--|
| V901     | △8-733-734-05 | PICTURE TUBE (A80JYV50X) (KV-32TS36/32TS46)        |
|          | △8-733-848-05 | PICTURE TUBE (A68KZJ50X) (KV-27TS36/27TS32/27TS29) |



9-964-933-81

**Sony Corporation**  
Consumer A&V Products Company  
TV & Display Products Div.

English  
94JE24-93-1  
Printed in Japan  
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# KV-27TS29/27TS32/27TS36

RM-Y116

RM-Y117

RM-Y118

# KV-32TS36/32TS46

RM-Y118

RM-Y119

SA-W200

## SONY SERVICE MANUAL

### US Model

KV-27TS29 Chassis No. SCC-F84C-A  
KV-27TS32 Chassis No. SCC-F84E-A  
KV-27TS36 Chassis No. SCC-F84D-A  
KV-32TS36 Chassis No. SCC-F84A-A  
KV-32TS46 Chassis No. SCC-F84B-A

## CORRECTION-2

### SUBJECT : PART CHANGE

Correct the service manual as shown below.  
File this collection with the service manual.

### Canadian Model

KV-27TS29 Chassis No. SCC-F85C-A  
KV-27TS36 Chassis No. SCC-F85D-A  
KV-32TS36 Chassis No. SCC-F85A-A  
KV-32TS46 Chassis No. SCC-F85B-A

 : Corrected portion

## SECTION 8 ELECTRICAL PARTS LIST

### D BOARD (See page 112)

| Incorrect |              |               | Correct  |              |              |
|-----------|--------------|---------------|----------|--------------|--------------|
| REF. NO.  | PART. NO.    | DESCRIPTION   | REF. NO. | PART. NO.    | DESCRIPTION  |
| D612      | 8-719-031-80 | DIODE D5SC4MR | D612     | 8-719-031-79 | DIODE D5SC4M |



9-964-933-92

Sony Corporation  
TV Group

English  
94AE0245-1  
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# KV-27TS29 / 27TS32 / 27TS36

RM-Y116                      RM-Y117                      RM-Y118

# KV-32TS36 / 32TS46

RM-Y118                      RM-Y119  
SA-W200

## SONY SERVICE MANUAL

### US Model

KV-27TS29 Chassis No. SCC-F84C-A  
KV-27TS32 Chassis No. SCC-F84E-A  
KV-27TS36 Chassis No. SCC-F84D-A  
KV-32TS36 Chassis No. SCC-F84A-A  
KV-32TS46 Chassis No. SCC-F84B-A

### Canadian Model

KV-27TS29 Chassis No. SCC-F85C-A  
KV-27TS36 Chassis No. SCC-F85D-A  
KV-32TS36 Chassis No. SCC-F85A-A  
KV-32TS46 Chassis No. SCC-F85B-A

## CORRECTION-3

### SUBJECT : PART CHANGE

Correct the service manual as shown below.  
File this collection with the service manual.

 : Corrected portion

### SECTION 8 ELECTRICAL PARTS LIST D BOARD (See page 112)

| Incorrect |              |              | Correct  |              |              |
|-----------|--------------|--------------|----------|--------------|--------------|
| REF. NO.  | PART. NO.    | DESCRIPTION  | REF. NO. | PART. NO.    | DESCRIPTION  |
| IC610     | 8-759-150-61 | IC UPC78L05T | IC610    | 8-759-708-05 | IC NJM78L05A |



9-964-933-93

Sony Corporation  
Consumer A&V Products Company  
TV&Display Products Div

English  
94CH 02493-1  
Printed in Japan  
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# SONY<sup>®</sup>

## SERVICE MANUAL

## AA-1 CHASSIS

| MODEL     | COMMANDER | DEST.    | CHASSIS NO. | MODEL     | COMMANDER          | DEST.    | CHASSIS NO. |
|-----------|-----------|----------|-------------|-----------|--------------------|----------|-------------|
| KV-27TS29 | RM-Y116   | US       | SCC-F84C-A  | KV-32TS36 | RM-Y118            | US       | SCC-F84A-A  |
| KV-27TS29 | RM-Y116   | Canadian | SCC-F85C-A  | KV-32TS36 | RM-Y118            | Canadian | SCC-F85A-A  |
| KV-27TS32 | RM-Y117   | US       | SCC-F84E-A  | KV-32TS46 | RM-Y118<br>SA-W200 | US       | SCC-F84B-A  |
| KV-27TS36 | RM-Y118   | US       | SCC-F84D-A  | KV-32TS46 | RM-Y118<br>SA-W200 | Canadian | SCC-F85B-A  |
| KV-27TS36 | RM-Y118   | Canadian | SCC-F85D-A  |           |                    |          |             |

## CORRECTION-4

SUBJECT: ADJUSTMENT CHANGE

File this correction with the Service manual.

■ : Corrected portion

### SECTION 3 SET-UP ADJUSTMENT

Preparations(See page 35)

| INCORRECT  | CORRECT  |
|--|--|
| <p>(1) In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.</p> <p>(2) Switch on the set's power and degauss with the degausser.</p> | <p>(1) In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.</p> <p>Note: Please do not use the hand degausser, because the hand degausser effects a spot on a CRT and magnetizes CRT around. ➡</p> |



9-964-933-94

※ Please file according to model size. ....

27 34

Sony Corporation  
Consumer A&V Products Company  
TV & Display Products Div.

English  
96BE05 366-1  
Printed in JAPAN  
1996.2

## (SUPER WOOFER BOARD)

| REF. NO. | PART NO.     | DESCRIPTION         | REMARK |
|----------|--------------|---------------------|--------|
| R034     | 1-249-429-11 | CARBON 10K 5%       | 1/4W   |
| R035     | 1-249-429-11 | CARBON 10K 5%       | 1/4W   |
| R036     | 1-249-433-11 | CARBON 22K 5%       | 1/4W   |
| R037     | 1-249-417-11 | CARBON 1K 5%        | 1/4W   |
| R038     | 1-247-866-11 | CARBON 30K 5%       | 1/4W   |
| R039     | 1-249-405-11 | CARBON 100 5%       | 1/4W   |
| R040     | 1-247-842-11 | CARBON 3K 5%        | 1/4W   |
| R041     | 1-249-405-11 | CARBON 100 5%       | 1/4W   |
| R042     | 1-247-842-11 | CARBON 3K 5%        | 1/4W   |
| R043     | 9-904-764-01 | METAL OXIDE 1 5%    | 1/2W   |
| R044     | 9-904-764-01 | METAL OXIDE 1 5%    | 1/2W   |
| R046     | 9-904-762-01 | METAL OXIDE 10 5%   | 1/4W   |
| R047     | 9-904-763-01 | METAL OXIDE 1.8K 5% | 1/2W   |
| R048     | 1-249-429-11 | CARBON 10K 5%       | 1/4W   |
| R049     | 1-249-429-11 | CARBON 10K 5%       | 1/4W   |

## &lt;VARIABLE RESISTOR&gt;

VR001 9-904-760-01 VOLUME

\*\*\*\*\*  
MISCELLANEOUS

\*\*\*\*\*

△ 9-904-750-01 CORD, POWER  
 △ 9-904-753-01 AC OUTLET  
 F001 △ 9-904-752-01 FUSE  
 SP901 9-900-278-01 SPEAKER  
 T901 △ 9-904-751-01 TRANSFORMER, POWER